573

QUELLE

# SERVICE MANUAL

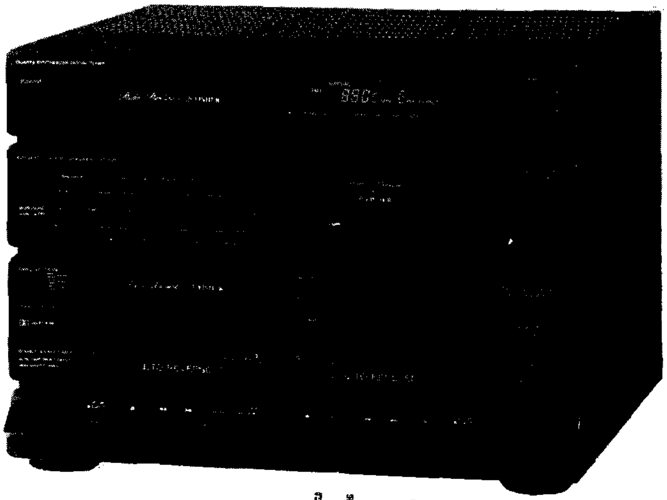
**FISHER**

## LW/MW/FM STEREO DOUBLE CASSETTE RECEIVER

# TAC-M80

( EUROPE/SPAIN )

037.483.5



132 344 40 (EUROPE)
132 344 49 (SPAIN)

Limitierte Ausgabe
- Nur an Leitstellen -

## SPECIFICATIONS

**Amplifier Section**

| | |
|---|---|
| **Minimum RMS sine wave power per channel at 6 ohms within rated bandwidth at no more than rated THD** | **25 Watts** |
| **Power Bandwidth** | **60 Hz – 20 kHz** |
| **Total Harmonic Distortion** | **0.9 %** |

**FM Tuner Section**

| | |
|---|---|
| Usable Sensitivity (Mono) | 3.0μV/15.1 dBf |
| Signal-to-Noise Ratio (Mono) | 65 dB |
| Stereo Separation at 1 kHz | 43 dB |

**MW Tuner Section**

| | |
|---|---|
| Usable Sensitivity | 600μV/m |
| Signal-to-Noise Ratio | 55 dB |

**LW Tuner Section**

| | |
|---|---|
| Usable Sensitivity | 2300μV/m |
| Signal-to-Noise Ratio | 50 dB |

**Cassette Section**

| | |
|---|---|
| Frequency Response | 50 Hz – 14 kHz |
| Wow and Flutter (WRMS) | 0.15 % |
| Channel Separation | 40 dB |

**General**

| | |
|---|---|
| Power Requirements | AC 220V |
| (50 Hz) | 145 Watts |
| Dimensions (WxHxD) | 335 x 245 x 300 mm |
| Weight (approx.) | 6.7 kg |

**Dolby is a registered trademark of Dolby Laboratories Licensing Corporation.**

**– Specifications and design are subject to change without notice. –**

QUELLE

**REFERENCE No. WM-570011**

573

## CAUTION ON RF ADJUSTMENT

This model uses a microprocessor for memory preset control for the various bands.
This function has been used to preset frequency points for the different bands to permit adjustment and make it possible to check the function of the microprocessor. To use this supplemental function, ground initialize test point TP7 for 1 second before beginning adjustment. The following table shows the initially preset frequencies.

| **Band** | **Memory** | | | | | |
|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** |
| FM-1 | 87.5MHz | 108MHz | 88MHz | 98MHz | 108MHz | 90MHz |
| MW/LW | 603kHz | 1404kHz | 999kHz | 160kHz | 350kHz | 250kHz |

## FM TUNER ALIGNMENT

**FM ALIGNMENT** – FUNCTION switch to FM/STEREO position.
**Note: It is almost unnecessary to adjust coil in Front End as perfectly adjusted**

| ITEM | GENERATOR | DIAL SETTING | INDICATOR | PROCEDURE |
|---|---|---|---|---|
| 1. FM IF S-CURVE ALIGNMENT | Connect 10.7MHz Radio IF Generator output to TP1 and ground lead to chassis. Use 5pF capacitor in series with generator output lead. | Position of non-interference Minimum Frequency. | Connect Radio IF Genescope input to TP5 and ground lead to chassis. | Adjust FM DET 1st Coil (T106) and FM DET 2nd Coil (T107) so that S-wave form becomes symmetrical. |
| 2. DETECTOR ADJUSTMENT (MINIMUM T.H.D.) | Connect FM RF signal generator through FM Dummy Antenna to FM Antenna terminals.<br>Set generator output level to 60dBμV at 98MHz±2kHz. | Set Preset STATION button to "4" position.<br>Set to 98MHz.<br>Set MODE switch to MONO. | Connect DC Voltmeter across TP3 and TP4. | Adjust FM DET 1st Coil (T106) until DC Voltmeter reads 0V ±50mV. |
| | | | Harmonic Distortion Analyzer to SPEAKER OUT. | Adjust FM DET 2nd Coil (T107) for minimum gain and best linearity. |
| **Note:** Repeat Step 1 (FM DET 1st Coil T106) and 2 (FM DET 2nd Coil T107) until optimum alignment is reached. | | | | |
| 3. FM MUTING LEVEL ADJUSTMENT | Same as above.<br>Adjust attenuator output level for 18dBμV. | Same as above. | Front panel TUNED Display Indicator. | Set MODE Switch to STEREO.<br>Adjust P101 until the TUNED Indicator partly light up. |
| **Note:** Decrease the output level of ATT and confirm that the wave form disappears. Increase the output level of ATT again and confirm that the input level meets the specifications sufficiently when the wave form has appeared. | | | | |
| 4. FM STEREO SIGNAL SEPARATION CONTROL | Connect FM Stereo SG to FM Antenna terminals.<br>19kHz signal ON.<br>Main channel, sub channel signal ON.<br>Apply 1000Hz signal from LEFT channel. | | Connect AC VTVM and Oscilloscope to SPEAKER OUT. | Adjust P103 for minimum output. |
| | Same as above for RIGHT channel. | | Connect AC VTVM and Oscilloscope to SPEAKER OUT. | |

Use a screwdriver with plastic grip for all adjustments.

**MW/LW Frequency Cover Range**
**Tuning Voltage Value at TP2**

**(Table 1)**

| | 153kHz | 360kHz | 522kHz | 1611kHz |
|---|---|---|---|---|
| Minimum | 0.7V | 6.0V | 1.0V | 7.0V |
| Typical | 0.93V | 6.7V | 1.3V | 8.03V |
| Maximum | 1.2V | 8.0V | 1.4V | 9.0V |

# AM TUNER ALIGNMENT

**AM ALIGNMENT** – FUNCTION switch to MW or LW position.
**Maintain generator output as low as possible for suitable indication.**

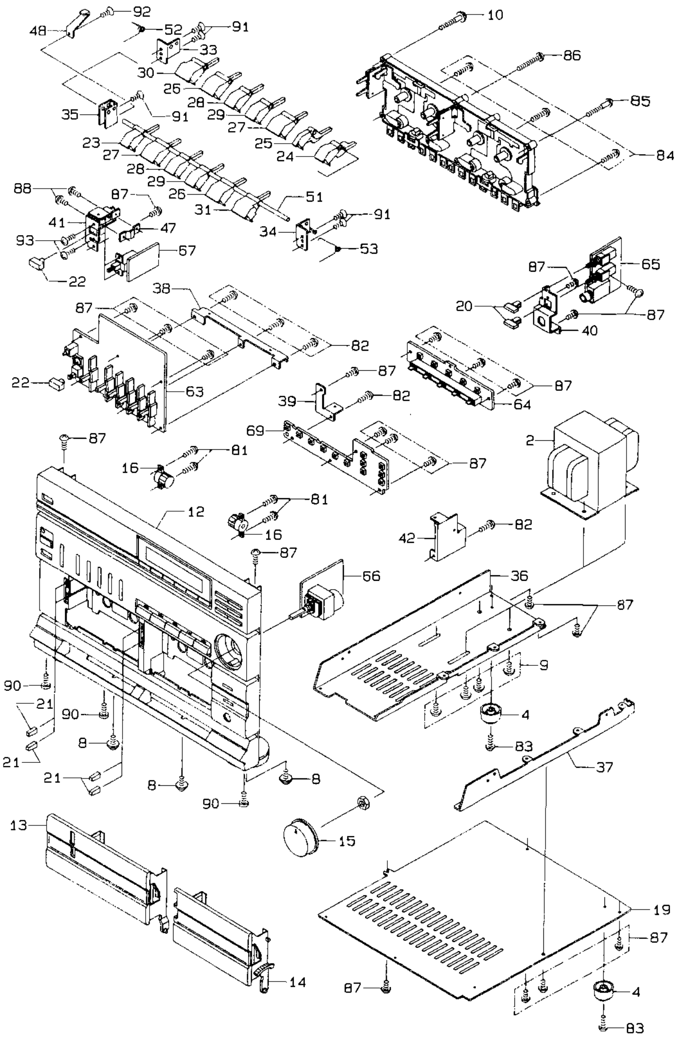
**Note:** Perform this alignment after FM Tuner Alignment.

| ITEM | GENERATOR | DIAL SETTING | INDICATOR | PROCEDURE |
|---|---|---|---|---|
| 1. AM IF ALIGNMENT | Connect 450kHz Radio IF Genescope output to Pin W1 and W2 Adjust output level to 70dBμV. | Position of non-interference Minimum Frequency. | Connect Radio IF Genescope input to TP6 and ground lead to chassis. | Adjust AM IFT (T105) for maximum gain and best symmetry.<br>Keep signal low enough for noise on response. |
| 2. MW RF FREQUENCY COVER ALIGNMENT (1611kHz) | Do not connect generator. | Front Panel DIGITAL Counter Display Set to 1611kHz. | Connect DC Voltmeter to TP2 and ground lead to chassis. | Check DC Voltmeter for Indication 7.0V ~ 9.0V. |
| 3. (522kHz) | Same as above. | DIGITAL Counter Display Set to 522kHz. | Same as above. | Check DC Voltmeter for Indication 1.0V ~ 1.4V. |
| **Note:** Repeat the adjustments in items 2 and 3. Then, confirm that each voltage becomes 1.3V to 8.03V at receiving frequency of 522kHz to 1611kHz. **(See Table 1)** | | | | |
| 4. LW RF FREQUENCY COVER ALIGNMENT (360kHz) | Do not connect generator. | Front Panel DIGITAL Counter Display Set to 360kHz. | Connect DC Voltmeter to TP2 and ground lead to chassis. | Check DC Voltmeter for Indication 6.0V ~ 8.0V. |
| 5. (153kHz) | Same as above. | DIGITAL Counter Display Set to 153kHz. | Same as above. | Check DC Voltmeter for Indication 0.7V ~ 1.2V. |
| **Note:** Repeat the adjustments in items 4 and 5. Then, confirm that each voltage becames 0.93V to 6.7V at receiving frequency of 153kHz to 360kHz. **(See Table 1)** | | | | |
| 6. MW RF TRACKING ALIGNMENT (603kHz) | Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop antenna (Unit). Generator Setting to 603kHz or 1404kHz. Modulate with 400Hz (30 % modulation). | Set Preset STATION button to "1" position. Set to 603kHz. | Connect AC VTVM and Oscilloscope to SPEAKER OUT. | Adjust MW ANT Coil (T101) for maximum gain output. |
| 7. (1404kHz) | | Change Preset STATION button to "2" position. Set to 1404kHz. | Same as above. | Adjust MW ANT Trimmer (TC101) for maximum gain output. |
| **Note:** Repeat the adjustments in Items 6 and 7. Then, confirm there is no tracking error. | | | | |
| 8. LW RF TRACKING ALIGNMENT (160kHz) | Change generator setting to 160kHz. | Set Preset STATION button to "4" position. Set to 160kHz. | Connect AC VTVM and Oscilloscope to TUNER OUT. | Adjust LW ANT Coil (T102) for maximum gain output. |
| 9. (350kHz) | Change generator setting to 350kHz. | Change Preset STATION button to "5" position. Set to 350kHz. | Same as above. | Adjust LW ANT Trimmer (TC102) for maximum gain output. |
| **Note:** Repeat the adjustments in Items 8 and 9. Then, confirm there is no tracking error. | | | | |
| 10. AM AUTO STOP SENSITIVITY ADJUSTMENT | Change generator setting to 999kHz and output level to 60dBμV/m. | Set Preset STATION button to "3" position. Set to 999kHz. | Front Panel TUNED Indicator Display. | Adjust P102 until the Indicator partly light up. |

Use a screwdriver with plastic grip for all adjustments.

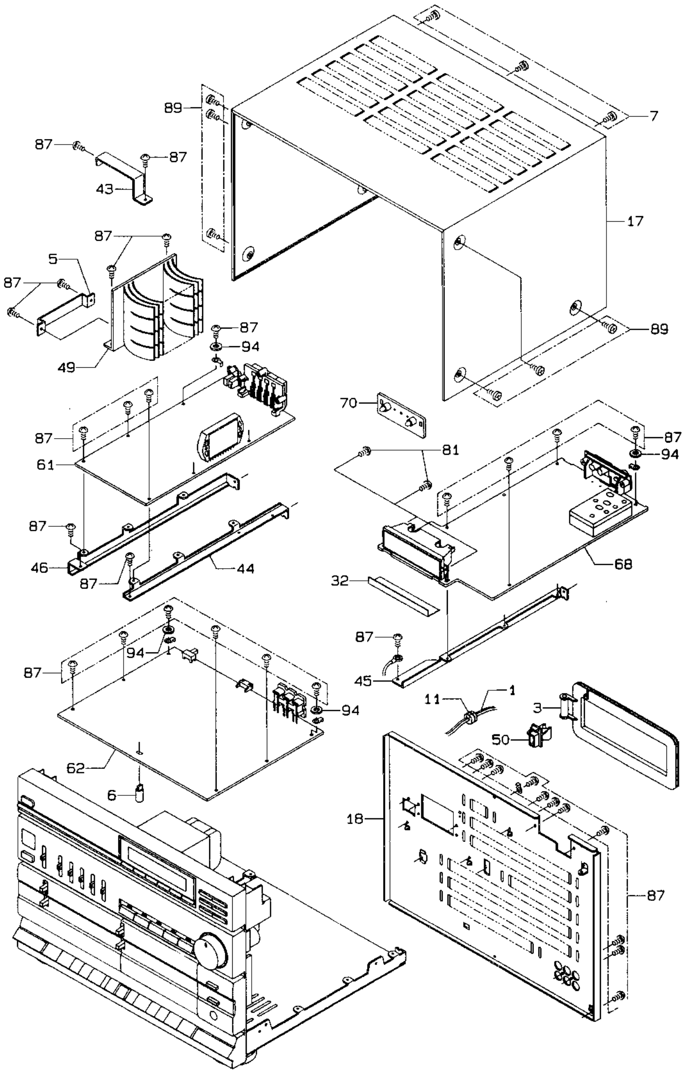
# CABINET & CHASSIS PARTS LIST / EXPLODED VIEW

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| ***PACKAGE*** | | | |
| | 620 057 8370 | Bag Polyethylene-Exp. | 1 |
| | 620 059 7333 | Patching Sheet | 1 |
| | 620 187 0343 | Box Corrugate-Exp. (Europe) | 1 |
| | 620 192 4770 | Box Corrugate-Exp. (Spain) | 1 |
| | 620 187 0381 | Pad Front | 1 |
| | 620 187 0398 | Pad Rear | 1 |
| | 620 148 5691 | Poly Cover 100 x 250 | 1 |
| | 620 062 0543 | Serial No. Sheet | 2 |
| ***ACCESSORIES*** | | | |
| | 620 038 1673 | FM Antenna Assy | 1 |
| | 620 057 8783 | Bag Fan | 1 |
| | 620 148 4571 | Poly Cover | 1 |
| | 620 152 2624 | Certificate Card | 1 |
| | 620 189 0730 | Explanatory Booklet | 1 |
| | 620 192 4909 | Explanatory Booklet (Spain Only) | 1 |
| | 411 123 3906 | SCR TPG BIN 3X10 | 2 |
| | 620 062 0543 | Serial No. Sheet | 1 |
| | 620 113 5312 | Stand Loop Antenna | 1 |
| ***CABINET*** | | | |
| | 620 019 9490 | Connector 1P Assy | 1 |
| | 620 022 3492 | Terminal Lug | 2 |
| | 620 116 4725 | Adhesive Sheet | 1 |
| | 620 125 8424 | Wire Band | 25 |
| | 620 152 7452 | Serial No. Sheet | 1 |
| | 403 069 8404 | CERAMIC 0.01U Z 50V | 3 |
| 1 ⚠ | 620 023 7550 | Power Cord | 1 |
| 2 ⚠ | 620 187 4082 | Power Trans | 1 |
| 3 | 620 028 2741 | AM Loop Antenna | 1 |
| 4 | 620 047 3866 | Leg | 2 |
| 5 | 620 048 2608 | Metal Mount (IC) | 1 |
| 6 | 620 050 4409 | Mount P.C.B. | 1 |
| 7 | 620 051 1780 | Screw, +M3.0X6.0 | 3 |
| 8 | 620 051 3760 | Screw, Braz. Hd. Tapping-B, +M3.0X8 | 3 |
| 9 | 620 051 4149 | Screw, 4X8 | 4 |
| 10 | 620 051 4293 | Screw, +M3.0X16 | 1 |
| 11 | 620 053 2136 | Bushing (Power Cord) | 1 |
| 12 | 620 186 3413 | Cabinet Front Assy | 1 |
| 13 | 620 186 3444 | Lid Cassette (Left) Assy | 1 |
| 14 | 620 186 3451 | Lid Cassette (Right) Assy | 1 |
| 15 | 620 186 3468 | Knob Volume Assy | 1 |
| 16 | 620 083 1789 | Gear Eject Assy | 2 |
| 17 | 620 090 5381 | Cover | 1 |
| 18 | 620 186 3734 | Panel Rear | 1 |
| 19 | 620 186 3826 | Plate Bottom | 1 |
| 20 | 620 111 1910 | Knob Push | 2 |
| 21 | 620 112 0011 | Knob (Mode,Direction) | 4 |
| 22 | 620 186 4021 | Knob Push (Power, Surround) | 2 |
| 23 | 620 186 4038 | Knob Record | 1 |
| 24 | 620 186 4045 | Knob Dubbing | 1 |
| 25 | 620 186 4052 | Knob High-Speed | 1 |
| 26 | 620 186 4069 | Knob Play, Pause | 2 |
| 27 | 620 188 5972 | Knob Play | 2 |
| 28 | 620 186 4076 | Knob Rewind | 2 |
| 29 | 620 186 4083 | Knob FF | 2 |
| 30 | 620 186 4090 | Knob Stop/Eject Left | 1 |
| 31 | 620 186 4106 | Knob Stop/Eject Right | 1 |
| 32 | 620 190 0927 | Shelter | 1 |
| 33 | 620 187 0022 | Bracket Spindle (Left) | 1 |
| 34 | 620 187 0039 | Bracket Spindle (Right) | 1 |
| 35 | 620 187 0046 | Bracket Spindle (Center) | 1 |
| 36 | 620 186 4168 | Chassis (Left) | 1 |
| 37 | 620 186 4175 | Chassis (Right) | 1 |
| 38 | 620 187 0145 | Bracket (A) | 1 |
| 39 | 620 187 0152 | Bracket (B) | 1 |
| 40 | 620 187 0169 | Bracket (C) | 1 |
| 41 | 620 187 0176 | Bracket (Left) | 1 |
| 42 | 620 187 0183 | Bracket (Right) | 1 |
| 43 | 620 187 0190 | Bracket Heat Sink | 1 |
| 44 | 620 187 0206 | Bracket P.C.B. Power | 1 |
| 45 | 620 187 0213 | Bracket P.C.B. Tuner | 1 |
| 46 | 620 188 5415 | Bracket P.C.B. Power Left | 1 |
| 47 | 620 189 5827 | Bracket (D) | 1 |
| 48 | 620 189 8972 | Bracket Reinforce | 1 |
| 49 | 620 186 4229 | Plate Heat Sink | 1 |
| 50 | 620 122 2210 | Holder Antenna | 1 |
| 51 | 620 129 3500 | Spindle Button | 1 |



| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 52 | 620 139 1916 | Spring Lid Cassette (Left) | 1 |
| 53 | 620 139 1923 | Spring Lid Cassette (Right) | 1 |
| 61 | 620 187 3276 | Power P.C.B. Assy | 1 |
| 62 | 620 187 3306 | Main P.C.B. Assy (1 ~ 10,000) | 1 |
| 62 | 620 192 4596 | Main P.C.B. Assy (10,001 ~ ) | 1 |
| 63 | 620 187 3320 | Graphic Equalizer P.C.B. Assy | 1 |
| 64 | 620 187 3337 | Function P.C.B. Assy | 1 |
| 65 | 620 187 3368 | Headphone P.C.B. Assy (1 ~ 10,000) | 1 |
| 65 | 620 192 4602 | Headphone P.C.B. Assy (10,001 ~ ) | 1 |
| 66 | 620 187 3382 | Volume P.C.B. Assy | 1 |
| 67 | 620 187 3405 | Power Switch P.C.B. Assy | 1 |
| 68 | 620 187 3429 | Tuner P.C.B. Assy | 1 |
| 69 | 620 187 3443 | Switch P.C.B. Assy | 1 |
| 70 | 620 187 3450 | Lamp P.C.B. Assy | 1 |
| 81 | 411 020 5706 | SCR S-TPG BRZ 2.6X8 | 6 |
| 82 | 411 020 5904 | SCR S-TPG BRZ 3X10 | 5 |
| 83 | 411 020 6208 | SCR S-TPG BRZ 3X12 | 2 |
| 84 | 411 020 6703 | SCR S-TPG BRZ 3X16 | 3 |
| 85 | 411 020 7205 | SCR S-TPG BRZ 3X25 | 1 |
| 86 | 411 020 7304 | SCR S-TPG BRZ 3X30 | 1 |
| 87 | 411 020 8004 | SCR S-TPG BRZ 3X8 | 57 |
| 88 | 411 021 5705 | SCR S-TPG BIN 3X6 | 2 |
| 89 | 411 021 5903 | SCR S-TPG BIN 3X6 | 6 |
| 90 | 411 021 6603 | SCR S-TPG BIN 3X8 | 3 |
| 91 | 411 022 2802 | SCR S-TPG FLT 3X10 | 5 |
| 92 | 411 022 3205 | SCR S-TPG FLT 3X14 | 1 |
| 93 | 411 003 8908 | SCR PAN+SW 3X6 | 2 |
| 94 | 411 008 1300 | WASHER SPR 3 | 4 |

# CABINET & CHASSIS PARTS LIST / EXPLODED VIEW (Continued)



| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|

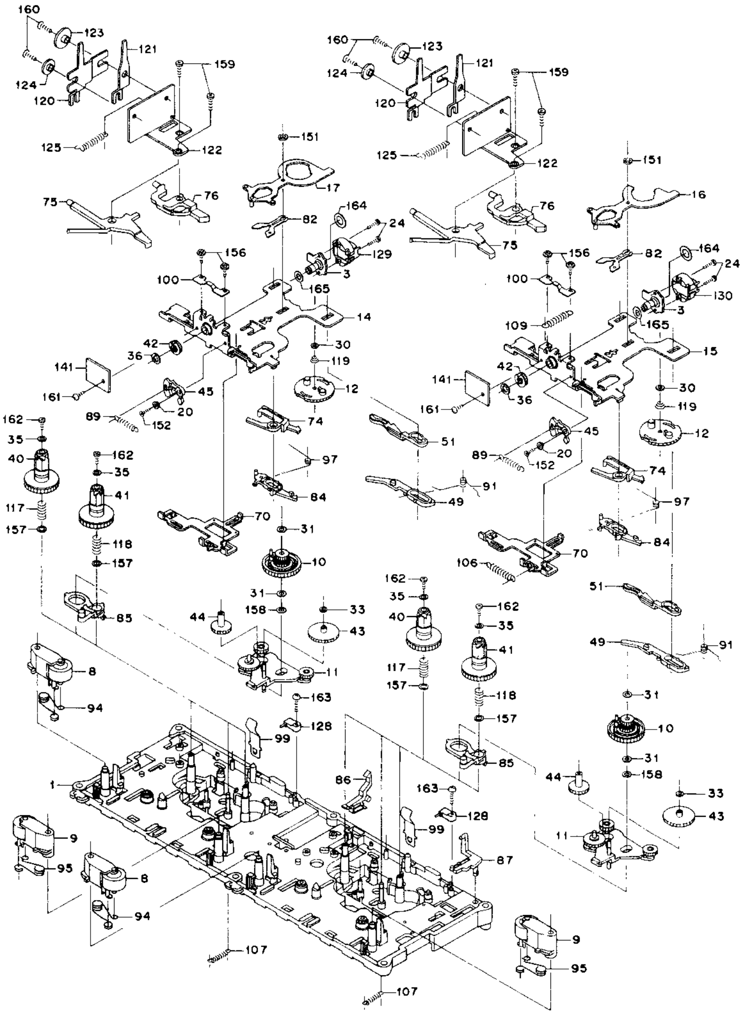
**NOTES:**

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

**PRODUCT SAFETY NOTICE**

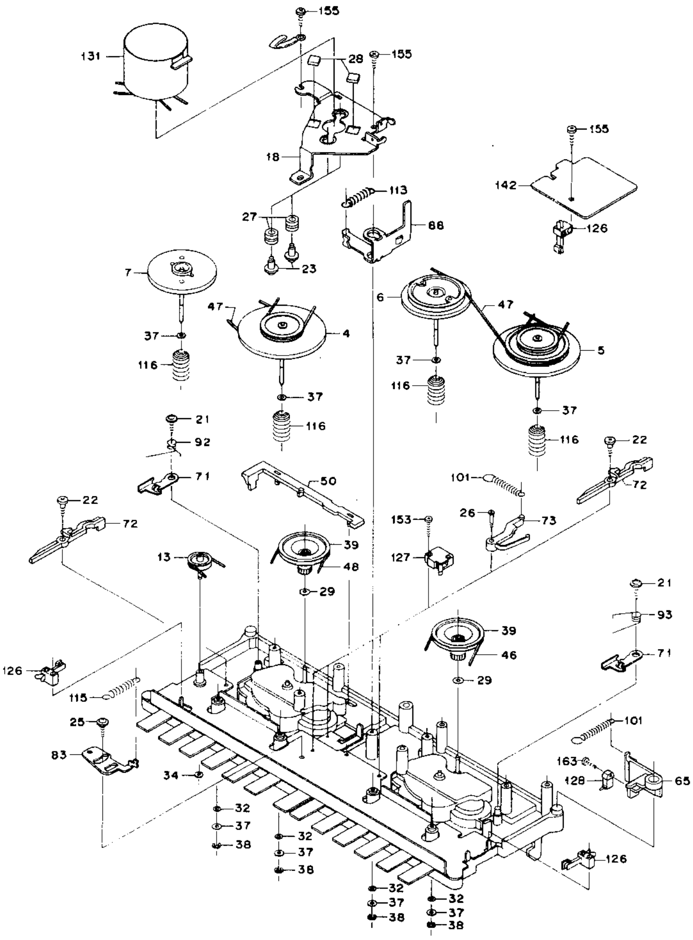
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

# CASSETTE DECK MECHANISM PARTS LIST / EXPLODED VIEW



| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| ***MECHANISM*** | | | |
| | 620 187 8967 | Connector 2P Assy [CA1] | 1 |
| | 620 187 9056 | Connector 3P Assy [CA2] | 1 |
| | 620 187 9063 | Connector 6P Assy [CA3] | 1 |
| | 620 017 5777 | Connector 1P Assy [CA4] | 1 |
| | 620 125 8103 | Lug | 1 |
| | 620 125 8424 | Wire Band | 1 |
| 1 | 620 081 6106 | Chassis Assy | 1 |
| 2 | 620 185 4534 | Bracket Rod Assy | 1 |
| 3 | 620 082 2893 | Plate Head Assy | 2 |
| 4 | 620 082 7324 | Flywheel R/P Assy | 1 |
| 5 | 620 082 7348 | Flywheel PB Assy | 1 |
| 6 | 620 082 7355 | Flywheel PB Assy | 1 |
| 7 | 620 082 7379 | Flywheel R/P Assy | 1 |
| 8 | 620 083 0607 | Pinchroller Assy | 2 |
| 9 | 620 083 0614 | Pinchroller Assy | 2 |
| 10 | 620 083 2755 | Friction Assy | 2 |
| 11 | 620 083 2816 | Gear Complete | 2 |
| 12 | 620 083 2830 | Gear Power REV Assy | 2 |
| 13 | 620 192 5920 | Pulley Drive Assy | 1 |
| 14 | 620 084 2853 | Base Slide PB Assy | 1 |
| 15 | 620 084 2860 | Base Slide R/P Assy | 1 |
| 16 | 620 085 0926 | Lever Change Assy | 1 |
| 17 | 620 085 0933 | Lever Change PB Assy | 1 |
| 18 | 620 119 2100 | Bracket Motor | 1 |
| 20 | 620 119 7532 | Spacer Gear REV | 2 |
| 21 | 620 122 7277 | Screw, w/Washer, +M2.0X6.0 | 2 |
| 22 | 620 122 8397 | Screw, Tapping, +M2.0X6.0 | 2 |
| 23 | 620 122 9356 | Screw Washer, +M2.6X1.5 | 2 |
| 24 | 620 123 0550 | Screw, Pan Hd., +M1.6X6.0 | 4 |
| 25 | 620 123 0710 | Screw, +M2.0X6.5 | 1 |
| 26 | 620 123 0826 | Screw M1.4 2X5 | 1 |
| 27 | 620 123 9942 | Cushion Motor | 2 |
| 28 | 620 124 5530 | Cushion | 2 |
| 29 | 620 125 3818 | Washer, M2.1X4.0X0.125 | 2 |
| 30 | 620 125 2071 | Washer, M1.6X4.0X0.40 | 2 |
| 31 | 620 125 2163 | Washer, M2.1X5.0X0.13 | 4 |
| 32 | 620 125 3078 | Washer, M2.1X3.5X0.25 | 4 |
| 33 | 620 125 3382 | Washer, M1.25X4.0X0.25 | 2 |
| 34 | 620 125 3894 | Washer, M1.6X3.2X0.4 | 1 |
| 35 | 620 125 4235 | Washer, M3.0X4.4X0.25 | 4 |
| 36 | 620 125 3849 | Washer, M4.2X7.0X0.13 | 2 |
| 37 | 620 125 4938 | Washer, M2.1X4.5X0.2 | 8 |
| 38 | 620 125 6666 | E Ring TE-4 | 4 |
| 39 | 620 126 3749 | Pulley Drive | 2 |
| 40 | 620 126 6382 | Fix Reel Take-up | 2 |
| 41 | 620 126 6399 | Fix Reel Supply | 2 |
| 42 | 620 127 8156 | Gear Head | 2 |
| 43 | 620 127 9283 | Gear Forward Play | 2 |
| 44 | 620 127 9344 | Gear Rewind Relay | 2 |
| 45 | 620 127 9351 | Gear Reverse | 2 |
| 46 | 620 128 6755 | Belt Drive | 1 |
| 47 | 620 128 6823 | Belt Wind | 2 |
| 48 | 620 128 6786 | Belt Drive R/P | 1 |
| 49 | 620 130 7238 | Plate Auto Shut-off | 2 |
| 50 | 620 130 7245 | Plate Change Record | 1 |
| 51 | 620 130 7252 | Lever Sensor | 2 |
| 52 | 620 130 7436 | Rod Stop R/P | 1 |
| 53 | 620 130 7450 | Rod Dubbing | 1 |
| 54 | 620 130 7474 | Rod Pause R/P | 1 |
| 55 | 620 130 7498 | Rod Play R/P | 1 |
| 56 | 620 130 7511 | Rod Rewind | 2 |
| 57 | 620 130 7535 | Rod Pause PB | 1 |
| 58 | 620 130 7559 | Rod Play PB | 1 |
| 59 | 620 130 7573 | Rod Stop PB | 1 |
| 60 | 620 130 7597 | Rod F FWD | 2 |
| 61 | 620 130 7603 | Plate Switch Motor PB | 1 |
| 62 | 620 130 7610 | Plate Switch Motor R/P | 1 |
| 63 | 620 130 7627 | Plate Lock PB | 1 |
| 64 | 620 130 7634 | Plate Lock R/P | 1 |
| 65 | 620 185 5777 | Lever Switch PB | 1 |
| 66 | 620 130 7672 | Rod Record | 1 |
| 67 | 620 130 7856 | Rod Speed Switch | 1 |
| 68 | 620 130 7863 | Plate Lock Lid PB | 1 |
| 69 | 620 130 7870 | Play Lock Lid R/P | 1 |
| 70 | 620 130 7993 | Plate Change | 2 |
| 71 | 620 131 8616 | Lutch Pause | 2 |
| 72 | 620 131 9439 | Lever Auto Shut-off | 2 |
| 73 | 620 131 9446 | Lever Change Record | 1 |
| 74 | 620 131 9453 | Lever Change Auto Shut-off | 2 |
| 75 | 620 131 9460 | Lever Change REV | 2 |
| 76 | 620 131 9477 | Lever Mode Change | 2 |
| 77 | 620 131 9538 | Lever Play | 1 |
| 78 | 620 131 9545 | Lever Cue Reverse | 2 |
| 79 | 620 131 9552 | Lever Pause R/P | 1 |
| 80 | 620 131 9569 | Lever Pause PB | 1 |
| 81 | 620 131 9576 | Lever Stopper Record | 1 |
| 82 | 620 131 9583 | Lever Change Take-up | 2 |
| 83 | 620 131 9606 | Lever Dubbing | 1 |
| 84 | 620 132 5744 | Lever Reverse | 2 |
| 85 | 620 132 5751 | Lever Arm Gear | 2 |
| 86 | 620 136 3852 | Interlock Lever | 1 |
| 87 | 620 136 4521 | Lever Reverse Record | 1 |
| 88 | 620 136 4545 | Lever R/P Switch | 1 |
| 89 | 620 139 1749 | Spring Gear REV | 2 |
| 90 | 620 137 8979 | Spring Rod | 4 |
| 91 | 620 137 9600 | Spring Lever Sensor | 2 |
| 92 | 620 137 9617 | Spring Pause Latch R | 1 |
| 93 | 620 137 9624 | Spring Pause Latch P | 1 |
| 94 | 620 137 9631 | Spring Pinch Roller REV | 2 |
| 95 | 620 137 9648 | Spring Pinch Roller FWD | 2 |
| 96 | 620 137 9655 | Spring Rod Play | 1 |
| 97 | 620 137 9662 | Spring Change ASO | 2 |
| 98 | 620 188 0519 | Spring Stopper Record | 1 |
| 99 | 620 138 4963 | Spring Cassette | 2 |
| 100 | 620 138 6769 | Spring Azimuth | 2 |
| 101 | 620 139 1527 | Spring Lever Switch R/P | 2 |

# CASSETTE DECK MECHANISM PARTS LIST / EXPLODED VIEW (Continued)



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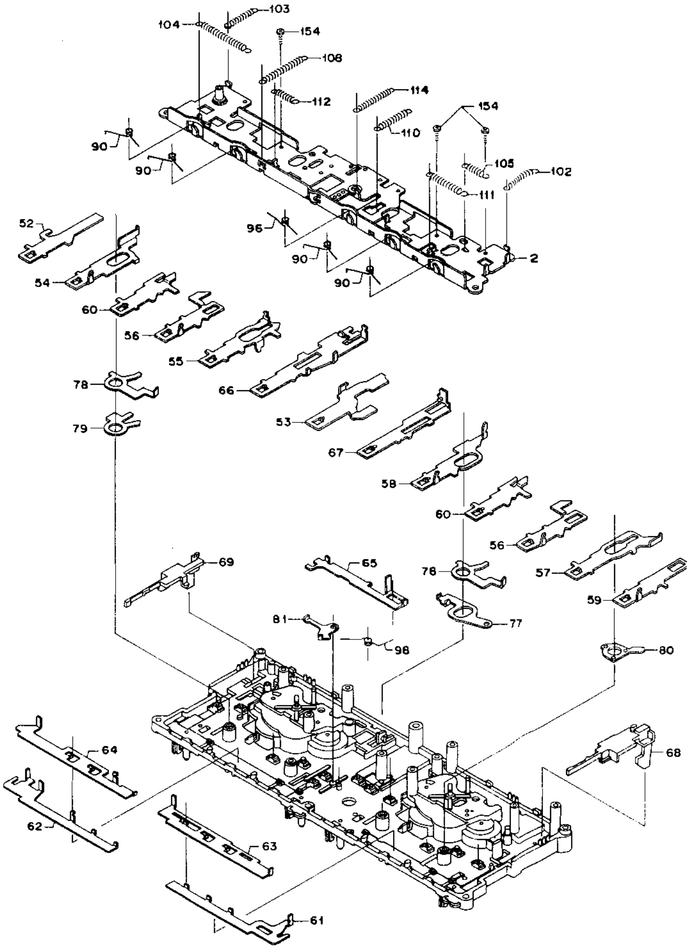

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| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 102 | 620 139 1701 | Spring PL Lock Lid PB | 1 |
| 103 | 620 139 1718 | Spring PL Lock Lid R/P | 1 |
| 104 | 620 139 1725 | Spring PL Motor Switch R/P | 1 |
| 105 | 620 139 1732 | Spring PL Motor Switch PB | 1 |
| 106 | 620 139 1756 | Spring Plate Change | 1 |
| 107 | 620 139 1763 | Spring Arm Gear | 2 |
| 108 | 620 139 1770 | Spring Rod Play | 1 |
| 109 | 620 139 1787 | Spring Base Slide R/P | 1 |
| 110 | 620 139 1794 | Spring Base Slide PB | 1 |
| 111 | 620 139 1800 | Spring Plate Lock PB | 1 |
| 112 | 620 139 1817 | Spring Plate Lock R/P | 1 |
| 113 | 620 190 0163 | Spring Lever Record | 1 |
| 114 | 620 139 1831 | Spring Speed Switch | 1 |
| 115 | 620 139 1855 | Spring Dubbing | 1 |
| 116 | 620 139 4467 | Spring Flywheel | 4 |
| 117 | 620 139 4559 | Spring REV Reel | 2 |
| 118 | 620 139 4566 | Spring FWD Reel | 2 |
| 119 | 620 139 4696 | Spring | 2 |
| 120 | 620 117 6636 | Metal Mount Direct | 2 |
| 121 | 620 117 6643 | Metal Mount Mode | 2 |
| 122 | 620 117 6650 | Metal Mount Levers | 2 |
| 123 | 620 119 7648 | Spacer | 2 |
| 124 | 620 119 7662 | Spacer | 2 |
| 125 | 620 139 2036 | Spring Direction | 2 |
| 126 | 620 016 2630 | Leaf Switch | 3 |
| 127 | 620 016 7925 | Lever Switch 1-2 | 1 |
| 128 | 620 016 8922 | Detector Switch 1P1T | 3 |
| 129 | 620 023 6195 | PB Rotary Head | 1 |
| 130 | 620 187 4051 | RP.E Rotary Head | 1 |

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 131 | 620 030 4221 | Motor | 1 |
| 141 | 620 012 0821 | PCB Head | 2 |
| 142 | 620 187 3344 | Mecha P.C.B. Assy | 1 |
| 151 | 411 015 7906 | RING E 1.5 | 2 |
| 152 | 411 017 4804 | SCR FLT PCS 1.7X4 | 2 |
| 153 | 411 021 0205 | SCR S-TPG BIN 2X12 | 1 |
| 154 | 411 021 0809 | SCR S-TPG BIN 2X6 | 3 |
| 155 | 411 021 3107 | SCR S-TPG BIN 2.6X8 | 3 |
| 156 | 412 022 9808 | SPECIAL SCREW | 4 |
| 157 | 412 023 2303 | SPECIAL WASHER | 4 |
| 158 | 412 023 2402 | SPECIAL WASHER | 2 |
| 159 | 411 022 7708 | SCR S-TPG PAN 2X5 | 4 |
| 160 | 411 033 9104 | SCR FLT 2.6X5 | 4 |
| 161 | 411 039 0105 | SCR PAN 2X3 | 2 |
| 162 | 412 025 9201 | SPECIAL SCREW | 4 |
| 163 | 411 022 8101 | SCR S-TPG PAN 2X7 | 3 |
| 164 | 412 022 4506 | SPECIAL WASHER | 2 |
| 165 | 412 026 0207 | SPECIAL WASHER | 2 |

**NOTES:**

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

# DOUBLE CASSETTE DECK ELECTRICAL ADJUSTMENT PROCEDURES

## MEASURING INSTRUMENTS REQUIRED

- Dualtrace Oscilloscope
- AC VTVM (AC voltmeter with high impedance)
- Frequency Counter
- Audio Signal Generator
- Dummy Load (6Ω 60watts resistor)
- Test Tapes
  - ‡ 3kHz Test Tape (Example: TEAC MTT-111) for Normal Tape Speed Adjustment
  - ‡ 10kHz Test Tape (Example: TEAC MTT-114) for Azimuth Adjustment
  - ‡ 400Hz Test Tape (Example: TEAC MTT-150) for Playback Sensitivity Adjustment
- Test Tapes for Recording and Playback Operations
  - ‡ Normal Tape (Example: TDK AC 223)
  - ‡ CrO$_2$ Tape (Example: TDK AC 512)
  - ‡ Metal Tape (Example: TDK AC 712)

## NORMAL/DOUBLE TAPE SPEED ADJUSTMENT

1. Connect the Dummy load (6Ω 60watts resistor) and the frequency counter to the Speaker terminal (Left channel).
2. Short the circuit between test point TP5 and TP6 on the Main P.C.Board. (The unit will be set to the High Speed mode.)
3. Load Deck 2 with a test tape (Example: TEAC MTT-111) and set it in the playback mode.
4. Adjust potentiometer P852 on the Mecha P.C.Board, so that the reading on the frequency counter is 6000Hz ~ 6060Hz.
5. Disconnect connecting wire from test point TP5 and TP6.
6. Load Deck 2 with a test tape and Adjust potentiometer P851, so that the reading on the frequency counter is 3000Hz ~ 3030Hz.

## HEAD AZIMUTH ADJUSTMENT

1. Connect the dualtrace oscilloscope and AC VTVM to the Dolby test point TP301 and TP302 (Left and Right channel) on the Main P.C.Board.

Then, set the dualtrace oscilloscope as follows:

‡ MODE ............................................. CHOP (chopped)
‡ SOURCE .......................... INT (internal), CH1 or CH2
‡ SWEEP MODE ............................... AUTO (automatic)

**NOTE:**

Adjust the field on the oscilloscope with the VOLT. ADJ. and TIME ADJ.

2. Load Deck 2 with a test tape (Example: TEAC MTT-114) and set it in the forward playback mode.
3. Adjust the azimuth adjustment screw, so that the wave forms become maximum on the oscilloscope and the Right channel wave form overlaps with the Left channel one.
4. Perform the same adjustment for Deck 1.
5. After the adjustment, secure the adjusting screw with paint or glue.

## PLAYBACK OUTPUT LEVEL ADJUSTMENT

1. Connect the oscilloscope and AC VTVM to the Dolby test point TP301 and TP302 (Left and Right channel) on the Main P.C.Board.
2. Load Deck 2 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
3. Adjust potentiometer P101, so that the output level becomes 548mV ±0.5dB : Dolby IC305 CXA-1101 (650mV±0.5dB : IC305 HA12136).
4. Adjust potentiometer P102 for the Right channel by following the same procedures as described for the Left channel.

## RECORDING BIAS LEVEL ADJUSTMENT

1. Connect the audio signal generator to the Left channel of the AUX input terminal, and the AC VTVM to the Dolby test point TP301 and TP302 (Left and Right channel) on the Main P.C.Board.
2. Load Deck 2 with a normal tape (Example: TDK AC223) and set it in the recording mode.
3. Function switch to the AUX position.
4. Set the Input Level ATT so that the output level becomes 30mV: IC305 CXA-1101 (36mV: IC305 HA12136) and feed the signals of 1kHz and 12.5kHz from the audio signal generator into the unit. Then, record the signals on the tape.
5. Playback the recorded signals and adjust potentiometer P301 for the Left channel, so that the difference in output of the 1kHz and 12.5kHz signals become +1, −0dB.
6. Adjust potentiometer P302 for the Right channel by following the same procedures as described for the Left channel.

## RECORDING FREQUENCY CHARACTERISTIC RESPONSE ADJUSTMENT

1. Perform the same procedures as described for the RECORDING BIAS LEVEL ADJUSTMENT.
2. Then perform the recoding and playback operations using the CrO$_2$ tape (Example: TDK AC 512) and METAL tape (Example: TDK AC 712). After that adjust P103 and P104 until the recoding/playback frequency meets the specifications.

# P.C.BOARD PART LIST

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| ***POWER P.C.B. ASSY*** | | | |
| 61 | 620 187 3276 | Power P.C.B. Assy | 1 |
| | 620 017 2738 | Fuse Clip | 12 |
| | 620 017 7160 | Socket 2P | 1 |
| | 620 022 2587 | EC Terminal 1P | 2 |
| | 620 022 3508 | Terminal Lug | 1 |
| | 620 187 4044 | Push Terminal 8P | 1 |
| | 620 031 4763 | Wire Wrap Terminal | 12 |
| | 620 053 9012 | Plate Heat Sink | 2 |
| | 411 020 7700 | SCR S-TPG BRZ 3X6 | 4 |
| CN701 | 620 182 8948 | Plug 6P | 1 |
| CN702 | 620 182 8993 | Plug 4P | 1 |
| CN703 | 620 189 8279 | Plug 5P | 1 |
| CN704 | 620 182 8955 | Plug 3P | 1 |
| F701⚠ | 423 006 4702 | FUSE 250V T 2.5A | 1 |
| F702⚠ | 423 006 4702 | FUSE 250V T 2.5A | 1 |
| F703⚠ | 423 006 8700 | FUSE 250V T 3.15A | 1 |
| F704⚠ | 423 006 8700 | FUSE 250V T 3.15A | 1 |
| F705⚠ | 423 005 0507 | FUSE 250V T 1A | 1 |
| F706⚠ | 423 005 0507 | FUSE 250V T 1A | 1 |
| L701 | 620 026 5478 | RF Filter | 1 |
| or | 620 026 5447 | RF Filter | 1 |
| L702 | 620 026 5478 | RF Filter | 1 |
| or | 620 026 5447 | RF Filter | 1 |
| W703 | 620 017 8686 | Connector 1P Assy | 1 |
| IC701 | 409 102 0206 | IC STK4142MK2 | 1 |
| Q701 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q702 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q703 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q704 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q705 | 405 003 7702 | TR 2SA1346 | 1 |
| Q706 | 405 035 7107 | TR 2SD1913-R | 1 |
| or | 405 035 7206 | TR 2SD1913-S | 1 |
| Q707 | 405 052 8002 | TR 2SB1274-R | 1 |
| or | 405 052 8101 | TR 2SB1274-S | 1 |
| Q708 | 405 035 7107 | TR 2SD1913-R | 1 |
| or | 405 035 7206 | TR 2SD1913-S | 1 |
| Q709 | 405 035 7107 | TR 2SD1913-R | 1 |
| or | 405 035 7206 | TR 2SD1913-S | 1 |
| Q710 | 405 004 4502 | TR 2SA608-F-NP-AA | 1 |
| or | 405 004 5004 | TR 2SA608-G-NP | 1 |
| D701 | 407 003 7300 | DIODE DBA30C-K12 | 1 |
| D702 | 407 005 3805 | DIODE DS442-BT | 1 |
| D703 | 407 005 3805 | DIODE DS442-BT | 1 |
| D704 | 407 049 7005 | ZENER DIODE GZA15Y | 1 |
| D705 | 407 049 7005 | ZENER DIODE GZA15Y | 1 |
| D706 | 407 049 6602 | ZENER DIODE GZA13Y-BT | 1 |
| D707 | 407 049 6305 | ZENER DIODE GZA12Y-BT | 1 |
| D708 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D709 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D710 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D711 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| C701 | 403 050 1308 | ELECT 2.2U M 50V | 1 |
| C702 | 403 050 1308 | ELECT 2.2U M 50V | 1 |
| C703 | 403 026 8201 | CERAMIC 470P K 50V | 1 |
| C704 | 403 026 8201 | CERAMIC 470P K 50V | 1 |
| C705 | 403 039 7901 | ELECT 100U M 10V | 1 |
| C706 | 403 039 7901 | ELECT 100U M 10V | 1 |
| C707 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C708 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C709 | 403 051 3905 | ELECT 47U M 50V | 1 |
| C710 | 403 051 3905 | ELECT 47U M 50V | 1 |
| C711 | 403 062 9705 | POLYESTER 6800P J 50V | 1 |
| C712 | 403 062 9705 | POLYESTER 6800P J 50V | 1 |
| C713 | 403 057 2100 | POLYESTER 0.1U J 50V | 1 |
| C714 | 403 057 2100 | POLYESTER 0.1U J 50V | 1 |
| C715 | 403 053 7703 | ELECT 330U M 35V | 1 |
| C716 | 403 052 8107 | ELECT 100U M 35V | 1 |
| C717 | 403 049 5409 | ELECT 10U M 50V | 1 |
| C718 | 403 049 5409 | ELECT 10U M 50V | 1 |
| C720 | 403 070 4709 | CERAMIC 1200P K 50V | 1 |
| C721 | 403 070 4709 | CERAMIC 1200P K 50V | 1 |
| C722 | 403 070 4709 | CERAMIC 1200P K 50V | 1 |
| C723 | 403 070 4709 | CERAMIC 1200P K 50V | 1 |
| C724 | 403 043 1100 | ELECT 220U M 16V | 1 |
| C725 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C727 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C728 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C729 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C730 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C731 | 404 012 5204 | ELECT 3300U M 35V | 1 |
| C732 | 404 012 5204 | ELECT 3300U M 35V | 1 |
| C733 | 403 045 0606 | ELECT 100U M 25V | 1 |
| C734 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C735 | 403 045 0606 | ELECT 100U M 25V | 1 |
| C736 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C737 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C738 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C739 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C740 | 404 012 7000 | CERAMIC 0.01U P 500V | 1 |
| C741 | 403 046 0605 | ELECT 2200U M 25V | 1 |
| C742 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C743 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C744 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C745 | 403 042 3600 | ELECT 100U M 16V | 1 |
| R701 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R702 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R703 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R704 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R705 | 401 027 3003 | CARBON 56K JA 1/6W | 1 |
| R706 | 401 027 3003 | CARBON 56K JA 1/6W | 1 |
| R707 | 401 021 4105 | CARBON 56K JA 1/4W | 1 |
| R708 | 401 021 4105 | CARBON 56K JA 1/4W | 1 |
| R709 | 401 027 2303 | CARBON 560 JA 1/6W | 1 |
| R710 | 401 027 2303 | CARBON 560 JA 1/6W | 1 |
| R711 | 401 016 3809 | CARBON 2.2K JA 1/4W | 1 |
| R712 | 401 016 3809 | CARBON 2.2K JA 1/4W | 1 |
| R713 | 402 040 5906 | OXIDE-MT 2.2K JB 1/2W | 1 |
| R714 | 402 040 5906 | OXIDE-MT 2.2K JB 1/2W | 1 |
| R715 | 402 015 7706 | FUSIBLE RES 100 J- 1/4W | 1 |
| R716 | 402 015 7706 | FUSIBLE RES 100 J- 1/4W | 1 |
| R718 | 402 039 5603 | OXIDE-MT 4.7K JB 1/2W | 1 |
| R719 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R720 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R721 | 401 027 9005 | CARBON 82K JA 1/6W | 1 |
| R722 | 401 027 9005 | CARBON 82K JA 1/6W | 1 |
| R723 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R724 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R725 | 402 016 4506 | FUSIBLE RES 10 J- 1/2W | 1 |
| R726 | 402 016 4506 | FUSIBLE RES 10 J- 1/2W | 1 |
| R727 | 401 016 2604 | CARBON 220 JA 1/4W | 1 |
| R728 | 401 025 4903 | CARBON 180K JA 1/6W | 1 |
| R729 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R730 | 402 040 6200 | OXIDE-MT 100 JB 1/2W | 1 |
| R731 | 402 040 6200 | OXIDE-MT 100 JB 1/2W | 1 |
| R732 | 402 016 5503 | FUSIBLE RES 47 J- 1/2W | 1 |
| R733 | 402 040 5104 | OXIDE-MT 680 JB 1/2W | 1 |
| R734 | 402 016 5503 | FUSIBLE RES 47 J- 1/2W | 1 |
| R735 | 402 040 5104 | OXIDE-MT 680 JB 1/2W | 1 |
| R736 | 402 034 4700 | FUSIBLE RES 0.47 J- 1/2W | 1 |
| R737 | 402 040 5104 | OXIDE-MT 680 JB 1/2W | 1 |
| R738 | 402 040 7900 | FUSIBLE RES 1 JA 1/2W | 1 |
| R739 | 402 040 5104 | OXIDE-MT 680 JB 1/2W | 1 |
| ***MAIN P.C.B. ASSY (DOLBY IC CXA1101P, 1~10,000)*** | | | |
| 62 | 620 187 3306 | Main P.C.B. Assy | 1 |
| | 620 182 8795 | Pin Jack 6P ALL BK | 1 |
| | 620 022 3508 | Terminal Lug | 2 |
| | 620 031 4763 | Wire Wrap Terminal | 3 |
| CA301 | 620 187 8943 | Connector 6P Assy | 1 |
| CA302 | 620 187 9025 | Connector 3P Assy | 1 |
| CN301 | 620 182 8955 | Plug 3P | 1 |
| CN302 | 620 182 8948 | Plug 6P | 1 |
| CN303 | 620 022 0545 | Plug 2P | 1 |
| CN304 | 620 182 8955 | Plug 3P | 1 |
| CN305 | 620 182 9013 | Plug 7P | 1 |
| CN306 | 620 182 9006 | Plug 5P | 1 |
| CN307 | 620 182 9037 | Plug 9P | 1 |
| P301 | 620 004 6763 | Semi Fixed (B-100kΩ) | 1 |
| or | 620 192 4985 | Semi Fixed (B-100kΩ) | 1 |
| P302 | 620 004 6763 | Semi Fixed (B-100kΩ) | 1 |
| or | 620 192 4985 | Semi Fixed (B-100kΩ) | 1 |
| P303 | 620 006 1346 | Potentiometer (220Ω) | 1 |
| or | 620 006 1988 | Potentiometer (B-200Ω) | 1 |

# P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| P304 | 620 006 1346 | Potentiometer (220Ω) | 1 |
| or | 620 006 1988 | Potentiometer (B-200Ω) | 1 |
| SW301 | 620 187 8868 | Slide Switch | 1 |
| T301 | 620 191 6638 | Filter Dolby | 1 |
| or | 620 029 5864 | Filter Dolby | 1 |
| T302 | 620 191 6638 | Filter Dolby | 1 |
| or | 620 029 5864 | Filter Dolby | 1 |
| T303 | 620 026 4631 | Bias Trap 105 Shield | 1 |
| T304 | 620 026 4631 | Bias Trap 105 Shield | 1 |
| T305 | 620 026 4440 | Bias Trap | 1 |
| T306 | 620 026 4440 | Bias Trap | 1 |
| T307 | 620 027 1899 | Coil,6.8MH/2.2MH. | 1 |
| T308 | 620 027 1899 | Coil,6.8MH/2.2MH. | 1 |
| T309 | 620 191 6058 | Bias OSC Coil | 1 |
| or | 620 028 8989 | Bias OSC Coil | 1 |
| IC301 | 409 018 4503 | IC LA6458DS | 1 |
| IC302 | 409 053 0300 | IC TC9152P | 1 |
| IC303 | 409 018 4503 | IC LA6458DS | 1 |
| IC304 | 409 121 8702 | IC LA3246 | 1 |
| IC305 | 409 119 9803 | IC CXA1101P | 1 |
| IC306 | 409 018 5401 | IC LA6462S | 1 |
| IC307 | 409 020 6601 | IC LC4001B | 1 |
| Q301 | 405 016 2206 | TR 2SC2878-A | 1 |
| or | 405 016 2305 | TR 2SC2878-B | 1 |
| Q302 | 405 016 2206 | TR 2SC2878-A | 1 |
| or | 405 016 2305 | TR 2SC2878-B | 1 |
| Q303 | 405 018 2600 | TR 2SC3400 | 1 |
| Q304 | 405 018 2600 | TR 2SC3400 | 1 |
| Q305 | 405 018 2600 | TR 2SC3400 | 1 |
| Q306 | 405 018 2600 | TR 2SC3400 | 1 |
| Q307 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q308 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q309 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q310 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q311 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q312 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q313 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q314 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q315 | 405 001 8107 | TR 2SA1016K-F | 1 |
| or | 405 001 8206 | TR 2SA1016K-G | 1 |
| Q316 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q317 | 405 018 2600 | TR 2SC3400 | 1 |
| Q318 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q319 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q320 | 405 018 0101 | TR 2SC3331-T | 1 |
| or | 405 018 0002 | TR 2SC3331-S | 1 |
| Q321 | 405 018 0101 | TR 2SC3331-T | 1 |
| or | 405 018 0002 | TR 2SC3331-S | 1 |
| Q322 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q323 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q324 | 405 018 2600 | TR 2SC3400 | 1 |
| Q325 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q326 | 405 018 2600 | TR 2SC3400 | 1 |
| Q327 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q328 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q329 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q330 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q331 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q332 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q333 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q334 | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| or | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q335 | 405 018 2600 | TR 2SC3400 | 1 |
| Q336 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q337 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q338 | 405 018 2600 | TR 2SC3400 | 1 |
| Q339 | 405 018 2600 | TR 2SC3400 | 1 |
| Q340 | 405 018 2600 | TR 2SC3400 | 1 |
| Q341 | 405 018 2600 | TR 2SC3400 | 1 |
| Q342 | 405 018 2600 | TR 2SC3400 | 1 |
| Q343 | 405 018 2600 | TR 2SC3400 | 1 |
| Q344 | 405 018 2600 | TR 2SC3400 | 1 |
| Q345 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q347 | 405 018 7308 | TR 2SC3708-T | 1 |
| or | 405 018 7209 | TR 2SC3708-S | 1 |
| Q348 | 405 003 7702 | TR 2SA1346 | 1 |
| Q349 | 405 018 2600 | TR 2SC3400 | 1 |
| Q350 | 405 018 2600 | TR 2SC3400 | 1 |
| Q351 | 405 018 2600 | TR 2SC3400 | 1 |
| Q352 | 405 018 2600 | TR 2SC3400 | 1 |
| D301 | 407 049 5407 | ZENER DIODE GZA10X-BT | 1 |
| D302 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D303 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D304 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D305 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D306 | 407 005 3805 | DIODE DS442-BT | 1 |
| D307 | 407 005 3805 | DIODE DS442-BT | 1 |
| D308 | 407 005 3805 | DIODE DS442-BT | 1 |
| D309 | 407 005 3805 | DIODE DS442-BT | 1 |
| D310 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D311 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D312 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D313 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D314 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D315 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D329 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D330 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D331 | 407 005 3805 | DIODE DS442-BT | 1 |
| D332 | 407 049 5407 | ZENER DIODE GZA10X-BT | 1 |
| D333 | 407 049 5407 | ZENER DIODE GZA10X-BT | 1 |
| D334 | 407 049 5407 | ZENER DIODE GZA10X-BT | 1 |
| C301 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C302 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C303 | 403 026 8201 | CERAMIC 470P K 50V | 1 |
| C304 | 403 026 8201 | CERAMIC 470P K 50V | 1 |
| C305 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C306 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C307 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C308 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C309 | 403 039 2906 | ELECT 47U M 6.3V | 1 |
| C310 | 403 039 2906 | ELECT 47U M 6.3V | 1 |
| C311 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C312 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C313 | 403 058 9603 | POLYESTER 0.018U J 50V | 1 |
| C314 | 403 058 9603 | POLYESTER 0.018U J 50V | 1 |
| C315 | 403 061 7801 | POLYESTER 4700P J 50V | 1 |
| C316 | 403 061 7801 | POLYESTER 4700P J 50V | 1 |
| C317 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C318 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C319 | 403 044 0300 | ELECT 47U M 16V | 1 |
| C320 | 403 044 0300 | ELECT 47U M 16V | 1 |
| C321 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C322 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C323 | 403 048 7602 | ELECT 0.47U M 50V | 1 |
| C324 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C325 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C326 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C327 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C328 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C329 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C330 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C331 | 403 051 2007 | ELECT 4.7U M 50V | 1 |
| C332 | 403 051 2007 | ELECT 4.7U M 50V | 1 |
| C333 | 403 073 8407 | CERAMIC 4700P K 50V | 1 |

# P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | | | | Q'ty |
|---|---|---|---|---|---|---|
| C334 | 403 073 8407 | CERAMIC | 4700P | K | 50V | 1 |
| C335 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C336 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C337 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C338 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C339 | 403 044 0300 | ELECT | 47U | M | 16V | 1 |
| C340 | 403 042 9008 | ELECT | 22U | M | 16V | 1 |
| C341 | 403 031 2805 | CERAMIC | 680P | K | 50V | 1 |
| C342 | 403 031 2805 | CERAMIC | 680P | K | 50V | 1 |
| C343 | 403 020 6203 | CERAMIC | 270P | K | 50V | 1 |
| C344 | 403 020 6203 | CERAMIC | 270P | K | 50V | 1 |
| C345 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C346 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C347 | 403 044 0300 | ELECT | 47U | M | 16V | 1 |
| C348 | 403 044 0300 | ELECT | 47U | M | 16V | 1 |
| C349 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C350 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C351 | 403 062 0108 | POLYESTER | 0.047U | J | 50V | 1 |
| C352 | 403 062 0108 | POLYESTER | 0.047U | J | 50V | 1 |
| C353 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C354 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C355 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C356 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C357 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C358 | 403 042 3600 | ELECT | 100U | M | 16V | 1 |
| C359 | 403 042 3600 | ELECT | 100U | M | 16V | 1 |
| C360 | 403 050 1209 | ELECT | 2.2U | M | 50V | 1 |
| C361 | 403 031 2805 | CERAMIC | 680P | K | 50V | 1 |
| C362 | 403 031 2805 | CERAMIC | 680P | K | 50V | 1 |
| C363 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C364 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C365 | 403 043 7102 | ELECT | 330U | M | 16V | 1 |
| C366 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C367 | 403 048 7602 | ELECT | 0.47U | M | 50V | 1 |
| C368 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C369 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C370 | 403 059 5208 | POLYESTER | 0.022U | J | 50V | 1 |
| C371 | 403 080 8308 | POLYPRO | 0.012U | J | 100V | 1 |
| C372 | 403 033 9406 | CERAMIC | 820P | K | 50V | 1 |
| C373 | 403 009 8105 | CERAMIC | 100P | K | 50V | 1 |
| C374 | 403 009 8105 | CERAMIC | 100P | K | 50V | 1 |
| C375 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C376 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C377 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C378 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C379 | 403 074 2701 | CERAMIC | 0.047U | Z | 50V | 1 |
| C380 | 403 074 2701 | CERAMIC | 0.047U | Z | 50V | 1 |
| C381 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C382 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C383 | 403 009 8105 | CERAMIC | 100P | K | 50V | 1 |
| C384 | 403 009 8105 | CERAMIC | 100P | K | 50V | 1 |
| C385 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C386 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C387 | 403 060 1008 | POLYESTER | 2700P | K | 50V | 1 |
| C388 | 403 060 1008 | POLYESTER | 2700P | K | 50V | 1 |
| C389 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C390 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C391 | 403 042 3600 | ELECT | 100U | M | 16V | 1 |
| C392 | 403 042 3600 | ELECT | 100U | M | 16V | 1 |
| C393 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C394 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C395 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C396 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C397 | 403 067 8307 | MT-COMPO | 0.68U | J | 50V | 1 |
| C398 | 403 067 8307 | MT-COMPO | 0.68U | J | 50V | 1 |
| C399 | 403 041 5704 | ELECT | 470U | M | 10V | 1 |
| C400 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C401 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C402 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C403 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C404 | 403 047 1502 | ELECT | 4.7U | M | 25V | 1 |
| C405 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C406 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C407 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C408 | 403 040 2704 | ELECT | 22U | M | 10V | 1 |
| C409 | 403 042 3600 | ELECT | 100U | M | 16V | 1 |
| C410 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C411 | 403 049 1609 | ELECT | 1U | M | 50V | 1 |
| C412 | 403 040 2704 | ELECT | 22U | M | 10V | 1 |
| C413 | 403 040 2704 | ELECT | 22U | M | 10V | 1 |
| C414 | 403 048 3109 | ELECT | 0.22U | M | 50V | 1 |
| C415 | 403 048 3109 | ELECT | 0.22U | M | 50V | 1 |
| C418 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C419 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C420 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C421 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C422 | 403 057 7204 | POLYESTER | 0.012U | J | 50V | 1 |
| C423 | 403 057 7204 | POLYESTER | 0.012U | J | 50V | 1 |
| C424 | 403 058 2901 | POLYESTER | 0.015U | J | 50V | 1 |
| C425 | 403 058 2901 | POLYESTER | 0.015U | J | 50V | 1 |
| C426 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C427 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C428 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C429 | 403 026 8201 | CERAMIC | 470P | K | 50V | 1 |
| C430 | 403 042 0302 | ELECT | 10U | M | 16V | 1 |
| C431 | 403 067 8307 | MT-COMPO | 0.68U | J | 50V | 1 |
| C432 | 403 067 8307 | MT-COMPO | 0.68U | J | 50V | 1 |
| C433 | 403 048 7602 | ELECT | 0.47U | M | 50V | 1 |
| C434 | 403 057 0106 | POLYESTER | 0.01U | J | 50V | 1 |
| C435 | 403 048 7602 | ELECT | 0.47U | M | 50V | 1 |
| C443 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| C444 | 403 018 8509 | CERAMIC | 220P | K | 50V | 1 |
| R301 | 401 025 7805 | CARBON | 2.2K | JA | 1/6W | 1 |
| R302 | 401 025 7805 | CARBON | 2.2K | JA | 1/6W | 1 |
| R303 | 401 025 0004 | CARBON | 120K | JA | 1/6W | 1 |
| R304 | 401 025 0004 | CARBON | 120K | JA | 1/6W | 1 |
| R305 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R306 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R307 | 401 026 0607 | CARBON | 270 | JA | 1/6W | 1 |
| R308 | 401 026 0607 | CARBON | 270 | JA | 1/6W | 1 |
| R309 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R310 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R311 | 401 025 1902 | CARBON | 15K | JA | 1/6W | 1 |
| R312 | 401 025 1902 | CARBON | 15K | JA | 1/6W | 1 |
| R313 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R314 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R315 | 401 012 5708 | CARBON | 1K | JA | 1/4W | 1 |
| R316 | 401 024 7004 | CARBON | 1K | JA | 1/6W | 1 |
| R317 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R318 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R319 | 401 024 7004 | CARBON | 1K | JA | 1/6W | 1 |
| R320 | 401 024 7004 | CARBON | 1K | JA | 1/6W | 1 |
| R321 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R322 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R323 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R324 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R325 | 401 027 0309 | CARBON | 47K | JA | 1/6W | 1 |
| R326 | 401 027 0309 | CARBON | 47K | JA | 1/6W | 1 |
| R327 | 401 012 4107 | CARBON | 100 | JA | 1/4W | 1 |
| or | 401 012 4503 | CARBON | 100 | JA | 1/4W | 1 |
| R328 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R329 | 401 012 5708 | CARBON | 1K | JA | 1/4W | 1 |
| R330 | 401 026 4605 | CARBON | 33K | JA | 1/6W | 1 |
| R331 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R332 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R333 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R334 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R335 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R336 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R337 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R338 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R339 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R340 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R341 | 401 027 0309 | CARBON | 47K | JA | 1/6W | 1 |
| R342 | 401 026 3905 | CARBON | 330 | JA | 1/6W | 1 |
| R343 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R344 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R345 | 401 013 7305 | CARBON | 120K | JA | 1/4W | 1 |
| R346 | 401 013 7305 | CARBON | 120K | JA | 1/4W | 1 |
| R347 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R348 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R349 | 401 025 7409 | CARBON | 220 | JA | 1/6W | 1 |
| R350 | 401 025 7409 | CARBON | 220 | JA | 1/6W | 1 |
| R351 | 401 024 6700 | CARBON | 100 | JA | 1/6W | 1 |
| R352 | 401 024 6700 | CARBON | 100 | JA | 1/6W | 1 |
| R353 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R354 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R355 | 401 026 4308 | CARBON | 3.3K | JA | 1/6W | 1 |

# P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | | | | Q'ty |
|---|---|---|---|---|---|---|
| R356 | 401 026 4308 | CARBON | 3.3K | JA | 1/6W | 1 |
| R357 | 401 024 7004 | CARBON | 1K | JA | 1/6W | 1 |
| R358 | 401 024 7004 | CARBON | 1K | JA | 1/6W | 1 |
| R359 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R360 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R361 | 401 027 3003 | CARBON | 56K | JA | 1/6W | 1 |
| R362 | 401 027 3003 | CARBON | 56K | JA | 1/6W | 1 |
| R363 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R364 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R365 | 401 012 4107 | CARBON | 100 | JA | 1/4W | 1 |
| or | 401 012 4503 | CARBON | 100 | JA | 1/4W | 1 |
| R366 | 401 027 0309 | CARBON | 47K | JA | 1/6W | 1 |
| R367 | 401 012 4107 | CARBON | 100 | JA | 1/4W | 1 |
| or | 401 012 4503 | CARBON | 100 | JA | 1/4W | 1 |
| R368 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R369 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R370 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R371 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R372 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R373 | 401 012 3407 | CARBON | 10 | JA | 1/4W | 1 |
| R374 | 401 012 3407 | CARBON | 10 | JA | 1/4W | 1 |
| R375 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R376 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R377 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R378 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R379 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R380 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R381 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R382 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R383 | 401 016 3809 | CARBON | 2.2K | JA | 1/4W | 1 |
| R384 | 401 016 3809 | CARBON | 2.2K | JA | 1/4W | 1 |
| R385 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R386 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R387 | 401 018 2800 | CARBON | 330 | JA | 1/4W | 1 |
| R388 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R389 | 401 024 9701 | CARBON | 12K | JA | 1/6W | 1 |
| R390 | 401 024 9701 | CARBON | 12K | JA | 1/6W | 1 |
| R391 | 401 025 7805 | CARBON | 2.2K | JA | 1/6W | 1 |
| R392 | 401 025 7805 | CARBON | 2.2K | JA | 1/6W | 1 |
| R393 | 401 025 4606 | CARBON | 18K | JA | 1/6W | 1 |
| R394 | 401 025 4606 | CARBON | 18K | JA | 1/6W | 1 |
| R395 | 401 026 1000 | CARBON | 2.7K | JA | 1/6W | 1 |
| R396 | 401 026 1000 | CARBON | 2.7K | JA | 1/6W | 1 |
| R397 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R398 | 401 025 8208 | CARBON | 22K | JA | 1/6W | 1 |
| R399 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R400 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R401 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R402 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R403 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R404 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R405 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R406 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R407 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R408 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R409 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R410 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R411 | 401 026 7606 | CARBON | 390K | JA | 1/6W | 1 |
| R412 | 401 026 7606 | CARBON | 390K | JA | 1/6W | 1 |
| R413 | 401 027 8602 | CARBON | 8.2K | JA | 1/6W | 1 |
| R414 | 401 027 8602 | CARBON | 8.2K | JA | 1/6W | 1 |
| R415 | 401 026 4308 | CARBON | 3.3K | JA | 1/6W | 1 |
| R416 | 401 026 4308 | CARBON | 3.3K | JA | 1/6W | 1 |
| R417 | 401 027 5502 | CARBON | 6.8K | JA | 1/6W | 1 |
| R418 | 401 027 5502 | CARBON | 6.8K | JA | 1/6W | 1 |
| R419 | 401 022 1905 | CARBON | 680 | JA | 1/4W | 1 |
| R420 | 401 012 4107 | CARBON | 100 | JA | 1/4W | 1 |
| or | 401 012 4503 | CARBON | 100 | JA | 1/4W | 1 |
| R421 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R422 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R423 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R424 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R425 | 401 026 9006 | CARBON | 43K | JA | 1/6W | 1 |
| R426 | 401 016 4806 | CARBON | 22K | JA | 1/4W | 1 |
| R427 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R428 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R429 | 401 027 5502 | CARBON | 6.8K | JA | 1/6W | 1 |
| R430 | 401 027 5502 | CARBON | 6.8K | JA | 1/6W | 1 |
| R431 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |

| Ref. No. | Part No. | Description | | | | Q'ty |
|---|---|---|---|---|---|---|
| R432 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R433 | 401 015 3800 | CARBON | 18K | JA | 1/4W | 1 |
| R434 | 401 015 3800 | CARBON | 18K | JA | 1/4W | 1 |
| R435 | 401 025 4606 | CARBON | 18K | JA | 1/6W | 1 |
| R436 | 401 025 4606 | CARBON | 18K | JA | 1/6W | 1 |
| R437 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R438 | 401 026 9907 | CARBON | 4.7K | JA | 1/6W | 1 |
| R439 | 401 026 7408 | CARBON | 39K | JA | 1/6W | 1 |
| R440 | 401 026 7408 | CARBON | 39K | JA | 1/6W | 1 |
| R441 | 401 027 0309 | CARBON | 47K | JA | 1/6W | 1 |
| R442 | 401 027 3003 | CARBON | 56K | JA | 1/6W | 1 |
| R443 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R444 | 401 025 8703 | CARBON | 220K | JA | 1/6W | 1 |
| R445 | 401 026 1000 | CARBON | 2.7K | JA | 1/6W | 1 |
| R446 | 401 026 1000 | CARBON | 2.7K | JA | 1/6W | 1 |
| R447 | 401 026 7408 | CARBON | 39K | JA | 1/6W | 1 |
| R448 | 401 026 7408 | CARBON | 39K | JA | 1/6W | 1 |
| R449 | 401 025 1902 | CARBON | 15K | JA | 1/6W | 1 |
| R450 | 401 025 1902 | CARBON | 15K | JA | 1/6W | 1 |
| R451 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R452 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R453 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R454 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R455 | 401 024 6700 | CARBON | 100 | JA | 1/6W | 1 |
| R456 | 401 024 6700 | CARBON | 100 | JA | 1/6W | 1 |
| R457 | 401 025 3807 | CARBON | 180 | JA | 1/6W | 1 |
| R458 | 401 025 3807 | CARBON | 180 | JA | 1/6W | 1 |
| R459 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R460 | 401 012 4107 | CARBON | 100 | JA | 1/4W | 1 |
| or | 401 012 4503 | CARBON | 100 | JA | 1/4W | 1 |
| R461 | 401 024 9701 | CARBON | 12K | JA | 1/6W | 1 |
| R462 | 401 024 9701 | CARBON | 12K | JA | 1/6W | 1 |
| R463 | 401 016 2604 | CARBON | 220 | JA | 1/4W | 1 |
| R464 | 401 014 2903 | CARBON | 150 | JA | 1/4W | 1 |
| R465 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R466 | 401 019 9600 | CARBON | 47 | JA | 1/4W | 1 |
| R467 | 401 017 7608 | CARBON | 3.9 | JA | 1/4W | 1 |
| R468 | 401 016 4806 | CARBON | 22K | JA | 1/4W | 1 |
| R469 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R470 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R471 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R472 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R473 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R474 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R475 | 401 024 7707 | CARBON | 100K | JA | 1/6W | 1 |
| R476 | 401 024 7400 | CARBON | 10K | JA | 1/6W | 1 |
| R477 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R478 | 401 012 7009 | CARBON | 10K | JA | 1/4W | 1 |
| R479 | 401 022 3107 | CARBON | 6.8K | JA | 1/4W | 1 |
| R480 | 401 016 4806 | CARBON | 22K | JA | 1/4W | 1 |

***GRAPHIC EQUALIZER P.C.B. ASSY***

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 63 | 620 187 3320 | Graphic Equalizer P.C.B. Assy | 1 |
| CA601 | 620 187 8981 | Connector 4P Assy | 1 |
| CA602 | 620 187 9049 | Connector 3P Assy | 1 |
| CA603 | 620 187 9032 | Connector 3P Assy | 1 |
| SW601 | 620 016 4375 | Push Switch 2P2T | 1 |
| VR601 | 620 006 3746 | Slide Volume (W-100kΩx2) | 1 |
| VR602 | 620 006 3746 | Slide Volume (W-100kΩx2) | 1 |
| VR603 | 620 006 3746 | Slide Volume (W-100kΩx2) | 1 |
| VR604 | 620 006 3746 | Slide Volume (W-100kΩx2) | 1 |
| VR605 | 620 006 3746 | Slide Volume (W-100kΩx2) | 1 |
| VR606 | 620 187 8837 | Slide Volume (W-200kΩ) | 1 |
| or | 620 192 1601 | Slide Volume 50KMN X2 | 1 |
| IC601 | 409 018 4503 | IC LA6458DS | 1 |
| Q601 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q602 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q603 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q604 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q605 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q606 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q607 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |

# P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| Q608 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q609 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q610 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| C601 | 403 059 0401 | POLYESTER 0.018U K 50V | 1 |
| C602 | 403 059 0401 | POLYESTER 0.018U K 50V | 1 |
| C603 | 403 050 1209 | ELECT 2.2U M 50V | 1 |
| C604 | 403 050 1209 | ELECT 2.2U M 50V | 1 |
| C605 | 403 063 6208 | POLYESTER 8200P K 50V | 1 |
| C606 | 403 063 6208 | POLYESTER 8200P K 50V | 1 |
| C607 | 403 048 7602 | ELECT 0.47U M 50V | 1 |
| C608 | 403 048 7602 | ELECT 0.47U M 50V | 1 |
| C609 | 403 061 8709 | POLYESTER 4700P K 50V | 1 |
| C610 | 403 061 8709 | POLYESTER 4700P K 50V | 1 |
| C611 | 403 063 8103 | POLYESTER 0.082U K 50V | 1 |
| C612 | 403 063 8103 | POLYESTER 0.082U K 50V | 1 |
| C613 | 403 058 1607 | POLYESTER 1500P K 50V | 1 |
| C614 | 403 058 1607 | POLYESTER 1500P K 50V | 1 |
| C615 | 403 059 6601 | POLYESTER 0.022U K 50V | 1 |
| C616 | 403 059 6601 | POLYESTER 0.022U K 50V | 1 |
| C617 | 403 074 9007 | CERAMIC 680P K 50V | 1 |
| C618 | 403 074 9007 | CERAMIC 680P K 50V | 1 |
| C619 | 403 061 8709 | POLYESTER 4700P K 50V | 1 |
| C620 | 403 061 8709 | POLYESTER 4700P K 50V | 1 |
| C621 | 403 071 5903 | CERAMIC 220P K 50V | 1 |
| C622 | 403 071 5903 | CERAMIC 220P K 50V | 1 |
| C623 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C624 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C625 | 403 071 5903 | CERAMIC 220P K 50V | 1 |
| C626 | 403 071 5903 | CERAMIC 220P K 50V | 1 |
| C627 | 403 008 5204 | CERAMIC 10P D 50V | 1 |
| C628 | 403 008 5204 | CERAMIC 10P D 50V | 1 |
| C631 | 403 045 7100 | ELECT 22U M 25V | 1 |
| C632 | 403 045 7100 | ELECT 22U M 25V | 1 |
| C633 | 403 044 8207 | ELECT 10U M 25V | 1 |
| C634 | 403 044 8207 | ELECT 10U M 25V | 1 |
| C635 | 403 042 3600 | ELECT 100U M 16V | 1 |
| C636 | 403 042 3600 | ELECT 100U M 16V | 1 |
| R601 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R602 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R603 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R604 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R605 | 401 025 2305 | CARBON 150K JA 1/6W | 1 |
| R606 | 401 025 2305 | CARBON 150K JA 1/6W | 1 |
| R607 | 401 024 9305 | CARBON 1.2K JA 1/6W | 1 |
| R608 | 401 024 9305 | CARBON 1.2K JA 1/6W | 1 |
| R609 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R610 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R611 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R612 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R613 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R614 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R615 | 401 024 9305 | CARBON 1.2K JA 1/6W | 1 |
| R616 | 401 024 9305 | CARBON 1.2K JA 1/6W | 1 |
| R617 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R618 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R619 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R620 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R621 | 401 026 7408 | CARBON 39K JA 1/6W | 1 |
| R622 | 401 026 7408 | CARBON 39K JA 1/6W | 1 |
| R623 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R624 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R625 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R626 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R627 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R628 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R629 | 401 026 4605 | CARBON 33K JA 1/6W | 1 |
| R630 | 401 026 4605 | CARBON 33K JA 1/6W | 1 |
| R631 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R632 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R633 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R634 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R635 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R636 | 401 027 8602 | CARBON 8.2K JA 1/6W | 1 |
| R637 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R638 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R639 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R640 | 401 025 1605 | CARBON 1.5K JA 1/6W | 1 |
| R641 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R642 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R643 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R644 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R645 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R646 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R647 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R648 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R649 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R650 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R653 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R654 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R655 | 401 012 4107 | CARBON 100 JA 1/4W | 1 |
| or | 401 012 4503 | CARBON 100 JA 1/4W | 1 |
| R656 | 401 012 4107 | CARBON 100 JA 1/4W | 1 |
| or | 401 012 4503 | CARBON 100 JA 1/4W | 1 |

### *FUNCTION P.C.B. ASSY*

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 64 | 620 187 3337 | Function P.C.B. Assy | 1 |
|  | 620 186 4199 | LED Holder | 1 |
| CA551 | 620 188 5538 | Connector 7P Assy | 1 |
| SW551 | 620 015 1917 | Keyboard Switch 6 mm (Tape) | 1 |
| SW552 | 620 015 1917 | Keyboard Switch 6 mm (Tuner) | 1 |
| SW553 | 620 015 1917 | Keyboard Switch 6 mm (CD) | 1 |
| SW554 | 620 015 1917 | Keyboard Switch 6 mm (AUX) | 1 |
| SW555 | 620 015 1917 | Keyboard Switch 6 mm (Phono) | 1 |
| D551 | 407 108 1203 | LED SLB-72VR3HLF (Tape) | 1 |
| D552 | 407 108 1203 | LED SLB-72VR3HLF (Tuner) | 1 |
| D553 | 407 108 1203 | LED SLB-72VR3HLF (CD) | 1 |
| D554 | 407 108 1203 | LED SLB-72VR3HLF (AUX) | 1 |
| D555 | 407 108 1203 | LED SLB-72VR3HLF (Phono) | 1 |
| R551 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |

### *HEADPHONE P.C.B. ASSY (1 ~ 10,000)*

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 65 | 620 187 3368 | Headphone P.C.B. Assy | 1 |
|  | 620 017 3322 | Jack 7P Black 6.43 | 1 |
| CA901 | 620 187 8929 | Connector 5P Assy | 1 |
| CA902 | 620 187 8936 | Connector 5P Assy | 1 |
| SW901 | 620 016 6935 | Push Switch 2P2T | 1 |
| SW902 | 620 016 6935 | Push Switch 2P2T | 1 |
| C901 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C902 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| R901 | 402 040 4909 | OXIDE-MT 270 JB 1/2W | 1 |
| R902 | 402 040 4909 | OXIDE-MT 270 JB 1/2W | 1 |
| R903 | 402 040 5005 | OXIDE-MT 150 JB 1/2W | 1 |
| R904 | 402 040 5005 | OXIDE-MT 150 JB 1/2W | 1 |

### *HEADPHONE P.C.B. ASSY (10,001 AND AFTER)*

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 65 | 620 192 4602 | Headphone P.C.B. Assy | 1 |
|  | 620 017 3322 | Jack 7P Black 6.43 | 1 |
| CA901 | 620 187 8929 | Connector 5P Assy | 1 |
| CA902 | 620 187 8936 | Connector 5P Assy | 1 |
| SW901 | 620 016 6935 | Push Switch 2P2T | 1 |
| SW902 | 620 016 6935 | Push Switch 2P2T | 1 |
| C901 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| C902 | 403 018 8509 | CERAMIC 220P K 50V | 1 |
| R901 | 402 040 4909 | OXIDE-MT 270 JB 1/2W | 1 |
| R902 | 402 040 4909 | OXIDE-MT 270 JB 1/2W | 1 |
| R903 | 402 040 5005 | OXIDE-MT 150 JB 1/2W | 1 |
| R904 | 402 040 5005 | OXIDE-MT 150 JB 1/2W | 1 |

### *VOLUME P.C.B. ASSY*

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 66 | 620 187 3382 | Volume P.C.B. Assy | 1 |
| CA951 | 620 187 9018 | Connector 3P Assy | 1 |
| CN951 | 620 187 7021 | Plug 3P | 1 |
| VR951 | 620 187 8844 | Volume (B-20kΩx2) | 1 |
| R953 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R954 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |

### *POWER SWITCH P.C.B. ASSY*

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 67 | 620 187 3405 | Power Switch P.C.B. Assy | 1 |
|  | 620 053 7025 | Cover Safety | 1 |
| SW991 | 620 015 2372 | Power Switch ⚠ | 1 |
| C991 | 620 006 6679 | Capacitor 0.01MF400V ⚠ | 1 |

# P.C.BOARD PART LIST (Continued)

***TUNER P.C.B. ASSY***

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| 68 | 620 187 3429 | Tuner P.C.B. Assy | 1 |
|  | 620 080 3595 | FM Front End P.C.B. Assy | 1 |

(Component parts used in Front End are not serviceable and available.)

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
|  | 620 017 0734 | Protector ICP-5 | 1 |
|  | 620 017 2738 | Fuse Clip | 2 |
|  | 620 022 2921 | ANT Terminal 3P | 1 |
|  | 620 022 3492 | Terminal Lug | 1 |
|  | 620 022 3508 | Terminal Lug | 1 |
|  | 620 031 4763 | Wire Wrap Terminal | 11 |
|  | 620 053 8848 | Plate Heat Sink | 1 |
|  | 620 053 9821 | Reflector | 1 |
|  | 620 191 0414 | Filter | 1 |
|  | 620 190 0521 | Cover Shield | 1 |
|  | 620 189 5872 | Plate Sever | 1 |
| ⚠ | 423 005 0507 | FUSE 250V T 1A | 1 |
|  | 411 020 8004 | SCR S-TPG BRZ 3X8 | 1 |
| CN101 | 620 182 8955 | Plug 3P | 1 |
| CN102 | 620 020 3753 | Socket Jumper 7P | 1 |
| F101 | 620 026 9353 | FTZ Antenna Filter | 1 |
| F103 | 620 014 5664 | Ceramic Filter | 1 |
| F104 | 620 014 5664 | Ceramic Filter | 1 |
| F105 | 620 014 5862 | Ceramic Filter 450kHz | 1 |
| F106 | 620 026 4396 | Anti Birdie Filter | 1 |
| F107 | 620 026 4754 | Low Pass Filter | 1 |
| or | 620 192 3377 | Low Pass Filter | 1 |
| F108 | 620 026 4754 | Low Pass Filter | 1 |
| or | 620 192 3377 | Low Pass Filter | 1 |
| JW101 | 620 055 2592 | Jumper | 1 |
| L101 | 620 026 5522 | Choke Coil 470UH | 1 |
| LCD1 | 620 189 2062 | LCD, FTD6410C | 1 |
| P101 | 620 006 1353 | Potentiometer (B-100kΩ) | 1 |
| P102 | 620 006 1377 | Potentiometer (B-10kΩ) | 1 |
| P103 | 620 006 1353 | Potentiometer (B-100kΩ) | 1 |
| T101 | 620 028 1348 | MW Antenna Coil | 1 |
| or | 620 192 7467 | MW Antenna Coil | 1 |
| T102 | 620 028 1362 | LW Antenna Coil | 1 |
| or | 620 028 2901 | LW Antenna Coil | 1 |
| T103 | 620 028 7784 | OSC Coil MW | 1 |
| or | 620 028 7760 | OSC Coil MW | 1 |
| or | 620 192 7474 | OSC Coil MW | 1 |
| T104 | 620 028 7845 | OSC Coil LW | 1 |
| or | 620 028 7821 | OSC Coil LW | 1 |
| or | 620 192 7481 | OSC Coil LW | 1 |
| T105 | 620 027 7280 | AM IFT | 1 |
| or | 620 027 7006 | IFT AM | 1 |
| T106 | 620 027 7242 | IFT, FM DET 1st | 1 |
| or | 620 192 7443 | IFT FM-DET 1st | 1 |
| T107 | 620 027 7259 | IFT, FM DET 2nd | 1 |
| or | 620 192 7450 | IFT FM-DET 2nd | 1 |
| TC101 | 620 006 9724 | Trimmer Condenser | 1 |
| TC102 | 620 007 0614 | Trimmer 20PF | 1 |
| X101 | 620 014 6258 | Ceramic OSC | 1 |
| X102 | 620 007 1314 | Crystal 7.2MHz | 1 |
| or | 620 007 1307 | Crystal 7.2MHz | 1 |
| or | 620 007 1321 | Crystal 7.2MHz | 1 |
| or | 620 007 3226 | Crystal 7.2MHz | 1 |
| or | 620 191 8304 | Xtal 7.2MHz CL = 15P | 1 |
| IC101 | 410 014 9607 | IC TSE2039AF-020 | 1 |
| IC102 | 409 072 1005 | IC TC9171P | 1 |
| IC103 | 409 073 9505 | IC LA1266 | 1 |
| IC104 | 409 017 0803 | IC LA3400 | 1 |
| IC105 | 409 074 0808 | IC LA5667 | 1 |
| Q101 | 405 027 0604 | TR 2SK246-Y | 1 |
| Q102 | 405 021 0907 | TR 2SD1012-H-SPA-AC | 1 |
| Q103 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q104 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q105 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q106 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q107 | 405 004 4502 | TR 2SA608-F-NP-AA | 1 |
| or | 405 004 5004 | TR 2SA608-G-NP | 1 |

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| Q108 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q109 | 405 004 4502 | TR 2SA608-F-NP-AA | 1 |
| or | 405 004 5004 | TR 2SA608-G-NP | 1 |
| Q110 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q111 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q112 | 405 004 4502 | TR 2SA608-F-NP-AA | 1 |
| or | 405 004 5004 | TR 2SA608-G-NP | 1 |
| Q113 | 405 021 0204 | TR 2SD1012-F-SPA-AC | 1 |
| or | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| Q114 | 405 021 0204 | TR 2SD1012-F-SPA-AC | 1 |
| or | 405 021 0600 | TR 2SD1012-G-SPA-AC | 1 |
| Q115 | 405 085 5900 | TR 2SK246-Y1 | 1 |
| or | 405 085 5801 | TR 2SK246-Y2 | 1 |
| Q116 | 405 016 9502 | TR 2SC3069 | 1 |
| Q117 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| Q118 | 405 004 4502 | TR 2SA608-F-NP-AA | 1 |
| or | 405 004 5004 | TR 2SA608-G-NP | 1 |
| Q119 | 405 016 0806 | TR 2SC2839-E | 1 |
| or | 405 016 1001 | TR 2SC2839-F | 1 |

If necessary, replace both Diode D101, D102 (SVC321) together with new ones which have the equivalent characteristics.

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| D101 | 407 000 4708 | VARACTOR DI SVC321C-2 | 1 |
| or | 407 000 4807 | VARACTOR DI SVC321D-2 | 1 |
| D102 | 407 000 4708 | VARACTOR DI SVC321C-2 | 1 |
| or | 407 000 4807 | VARACTOR DI SVC321D-2 | 1 |
| D103 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D104 | 407 005 3805 | DIODE DS442-BT | 1 |
| D105 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D106 | 407 012 8503 | DIODE 1SS53 | 1 |
| D107 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D108 | 407 005 3805 | DIODE DS442-BT | 1 |
| D109 | 407 012 8503 | DIODE 1SS53 | 1 |
| D110 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D111 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D112 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D113 | 407 004 9105 | DIODE DSF10C-BT | 1 |
| D114 | 407 005 3805 | DIODE DS442-BT | 1 |
| D115 | 407 005 3805 | DIODE DS442-BT | 1 |
| D120 | 407 008 0405 | DIODE GMB01-BT | 1 |
| D121 | 407 008 0405 | DIODE GMB01-BT | 1 |
| C101 | 403 026 5408 | CERAMIC 47P K 50V | 1 |
| C102 | 403 023 1700 | CERAMIC 33P K 50V | 1 |
| C103 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C104 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C105 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C107 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C108 | 403 026 5408 | CERAMIC 47P K 50V | 1 |
| C109 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C110 | 403 008 5204 | CERAMIC 10P D 50V | 1 |
| C111 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C112 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C113 | 403 050 1209 | ELECT 2.2U M 50V | 1 |
| C114 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C115 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C116 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C117 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C118 | 403 044 0201 | ELECT 47U M 16V | 1 |
| C119 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C120 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C121 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C122 | 403 029 0509 | CERAMIC 560P K 50V | 1 |
| C123 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C124 | 403 050 7706 | ELECT 3.3U M 50V | 1 |
| C125 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C126 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C127 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C128 | 403 026 5408 | CERAMIC 47P K 50V | 1 |
| C129 | 403 047 1502 | ELECT 4.7U M 25V | 1 |
| C130 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C131 | 403 031 0306 | CERAMIC 68P K 50V | 1 |
| C132 | 403 018 4204 | CERAMIC 22P K 50V | 1 |
| C133 | 403 088 4104 | STYRENE 430P J 50V | 1 |

# P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| C134 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C135 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C136 | 403 088 1103 | STYRENE 330P J 50V | 1 |
| C137 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C138 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C139 | 403 057 0908 | POLYESTER 0.01U K 50V | 1 |
| C140 | 403 060 8700 | POLYESTER 0.033U K 50V | 1 |
| C141 | 403 039 2906 | ELECT 47U M 6.3V | 1 |
| C142 | 403 061 8709 | POLYESTER 4700P K 50V | 1 |
| C143 | 403 023 5807 | CERAMIC 330P K 50V | 1 |
| C144 | 403 063 0503 | POLYESTER 6800P K 50V | 1 |
| C145 | 403 056 8608 | POLYESTER 1000P K 50V | 1 |
| C146 | 403 062 0900 | POLYESTER 0.047U K 50V | 1 |
| C147 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C148 | 403 057 0908 | POLYESTER 0.01U K 50V | 1 |
| C149 | 403 050 1209 | ELECT 2.2U M 50V | 1 |
| C150 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C151 | 403 081 8505 | POLYPRO 390P J 100V | 1 |
| C152 | 403 081 8505 | POLYPRO 390P J 100V | 1 |
| C153 | 403 050 7706 | ELECT 3.3U M 50V | 1 |
| C154 | 403 050 7706 | ELECT 3.3U M 50V | 1 |
| C155 | 403 062 5608 | POLYESTER 5600P K 50V | 1 |
| C156 | 403 062 5608 | POLYESTER 5600P K 50V | 1 |
| C157 | 403 048 7602 | ELECT 0.47U M 50V | 1 |
| C158 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C159 | 403 026 5408 | CERAMIC 47P K 50V | 1 |
| C160 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C161 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C162 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C163 | 403 002 2902 | CERAMIC 0.01U M 25V | 1 |
| C164 | 403 057 0908 | POLYESTER 0.01U K 50V | 1 |
| C165 | 403 038 2402 | ELECT 100U M 6.3V | 1 |
| C166 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C167 | 403 039 2906 | ELECT 47U M 6.3V | 1 |
| C168 | 403 069 1504 | CERAMIC 1000P K 50V | 1 |
| C169 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C170 | 403 044 0300 | ELECT 47U M 16V | 1 |
| C171 | 403 042 0302 | ELECT 10U M 16V | 1 |
| C172 | 403 038 2303 | ELECT 100U M 6.3V | 1 |
| C173 | 403 022 5907 | CERAMIC 33P J 50V | 1 |
| or | 403 017 7404 | CERAMIC 22P J 50V | 1 |
| C174 | 403 022 5907 | CERAMIC 33P J 50V | 1 |
| or | 403 017 7404 | CERAMIC 22P J 50V | 1 |
| C175 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C176 | 403 039 7802 | ELECT 100U M 10V | 1 |
| C177 | 403 040 6603 | ELECT 2200U M 10V | 1 |
| C178 | 403 074 2701 | CERAMIC 0.047U Z 50V | 1 |
| C179 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C180 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C181 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C182 | 403 069 8404 | CERAMIC 0.01U Z 50V | 1 |
| C183 | 403 045 2808 | ELECT 1000U M 25V | 1 |
| C184 | 403 049 1609 | ELECT 1U M 50V | 1 |
| C185 | 403 040 2704 | ELECT 22U M 10V | 1 |
| C186 | 403 042 0302 | ELECT 10U M 16V | 1 |
| R101 | 401 009 6602 | CARBON 3.3K JA 1/2W | 1 |
| R103 | 401 016 1102 | CARBON 22 JA 1/4W | 1 |
| R104 | 401 024 8001 | CARBON 1M JA 1/6W | 1 |
| R105 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R106 | 401 024 8001 | CARBON 1M JA 1/6W | 1 |
| R107 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R108 | 401 026 1000 | CARBON 2.7K JA 1/6W | 1 |
| R109 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R110 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R111 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R112 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R113 | 401 016 4806 | CARBON 22K JA 1/4W | 1 |
| R114 | 401 027 5502 | CARBON 6.8K JA 1/6W | 1 |
| R115 | 401 026 1000 | CARBON 2.7K JA 1/6W | 1 |
| R116 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R117 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R118 | 401 027 5502 | CARBON 6.8K JA 1/6W | 1 |
| R119 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |
| R120 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R121 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R122 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R123 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R124 | 401 018 3807 | CARBON 3.3K JA 1/4W | 1 |
| R125 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| R126 | 401 012 8105 | CARBON 100K JA 1/4W | 1 |
| R127 | 401 016 4806 | CARBON 22K JA 1/4W | 1 |
| R128 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R129 | 401 014 4105 | CARBON 1.5K JA 1/4W | 1 |
| R130 | 401 027 9005 | CARBON 82K JA 1/6W | 1 |
| R131 | 401 026 7408 | CARBON 39K JA 1/6W | 1 |
| R132 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R133 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R134 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |
| R135 | 401 012 4107 | CARBON 100 JA 1/4W | 1 |
| R136 | 401 016 1102 | CARBON 22 JA 1/4W | 1 |
| R137 | 401 026 4308 | CARBON 3.3K JA 1/6W | 1 |
| R138 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R139 | 401 012 4503 | CARBON 100 JA 1/4W | 1 |
| R140 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R141 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R142 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R143 | 401 026 9907 | CARBON 4.7K JA 1/6W | 1 |
| R144 | 401 025 1902 | CARBON 15K JA 1/6W | 1 |
| R145 | 401 012 8105 | CARBON 100K JA 1/4W | 1 |
| R146 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R147 | 401 027 2600 | CARBON 5.6K JA 1/6W | 1 |
| R148 | 401 016 4806 | CARBON 22K JA 1/4W | 1 |
| R149 | 401 012 8105 | CARBON 100K JA 1/4W | 1 |
| R150 | 401 016 1102 | CARBON 22 JA 1/4W | 1 |
| R151 | 401 025 0905 | CARBON 130K JA 1/6W | 1 |
| R152 | 401 025 0905 | CARBON 130K JA 1/6W | 1 |
| R153 | 401 026 4308 | CARBON 3.3K JA 1/6W | 1 |
| R154 | 401 026 4308 | CARBON 3.3K JA 1/6W | 1 |
| R155 | 401 018 3807 | CARBON 3.3K JA 1/4W | 1 |
| R156 | 401 026 4308 | CARBON 3.3K JA 1/6W | 1 |
| R157 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R158 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R159 | 401 027 2600 | CARBON 5.6K JA 1/6W | 1 |
| R160 | 401 027 2600 | CARBON 5.6K JA 1/6W | 1 |
| R161 | 401 025 0004 | CARBON 120K JA 1/6W | 1 |
| R162 | 401 025 0004 | CARBON 120K JA 1/6W | 1 |
| R163 | 401 027 5502 | CARBON 6.8K JA 1/6W | 1 |
| R164 | 401 025 7805 | CARBON 2.2K JA 1/6W | 1 |
| R165 | 401 027 5908 | CARBON 68K JA 1/6W | 1 |
| R166 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R167 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R168 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R169 | 401 012 8105 | CARBON 100K JA 1/4W | 1 |
| R170 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |
| R171 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R172 | 401 026 4308 | CARBON 3.3K JA 1/6W | 1 |
| R173 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R174 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R175 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R176 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R177 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R178 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R179 | 401 017 1804 | CARBON 2.7K JA 1/4W | 1 |
| R180 | 401 018 3807 | CARBON 3.3K JA 1/4W | 1 |
| R181 | 401 019 9600 | CARBON 47 JA 1/4W | 1 |
| R182 | 401 017 1804 | CARBON 2.7K JA 1/4W | 1 |
| R183 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R184 | 401 027 5205 | CARBON 680 JA 1/6W | 1 |
| R185 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R186 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R187 | 401 027 2600 | CARBON 5.6K JA 1/6W | 1 |
| R188 | 401 024 7400 | CARBON 10K JA 1/6W | 1 |
| R189 | 401 020 0801 | CARBON 470 JA 1/4W | 1 |
| R190 | 401 019 9204 | CARBON 47 JA 1/4W | 1 |
| R191 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R192 | 401 027 2600 | CARBON 5.6K JA 1/6W | 1 |
| R193 | 401 012 4503 | CARBON 100 JA 1/4W | 1 |
| R194 | 401 026 4605 | CARBON 33K JA 1/6W | 1 |
| R195 | 401 018 4903 | CARBON 33K JA 1/4W | 1 |
| R196 | 401 025 8703 | CARBON 220K JA 1/6W | 1 |
| R197 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R198 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R199 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R200 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R201 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R202 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R203 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |
| R204 | 401 012 7009 | CARBON 10K JA 1/4W | 1 |

## P.C.BOARD PART LIST (Continued)

| Ref. No. | Part No. | Description | Q'ty |
|---|---|---|---|
| R205 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R206 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R207 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R208 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R209 | 401 012 5708 | CARBON 1K JA 1/4W | 1 |
| R210 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |
| R211 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R212 | 401 027 0309 | CARBON 47K JA 1/6W | 1 |
| R213 | 401 024 7004 | CARBON 1K JA 1/6W | 1 |
| R214 | 401 026 6609 | CARBON 390 JA 1/6W | 1 |
| R215 | 401 016 3809 | CARBON 2.2K JA 1/4W | 1 |
| R216 | 401 019 1000 | CARBON 390 JA 1/4W | 1 |
| R217 | 401 027 5205 | CARBON 680 JA 1/6W | 1 |
| R223 | 401 024 8001 | CARBON 1M JA 1/6W | 1 |
| R224 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| R225 | 401 024 7707 | CARBON 100K JA 1/6W | 1 |
| ***SWITCH P.C.B. ASSY*** | | | |
| 69 | 620 187 3443 | Switch P.C.B. Assy | 1 |
| JW102 | 620 187 9148 | Jumper | 1 |
| SW101 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW102 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW103 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW104 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW105 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW106 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW107 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW108 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW109 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW110 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW111 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| SW112 | 620 015 1917 | Keyboard Switch 6 mm | 1 |
| ***LAMP P.C.B. ASSY*** | | | |
| 70 | 620 187 3450 | Lamp P.C.B. Assy | 1 |
| | 620 030 8144 | Lamp | 2 |
| | 620 052 0171 | Spacer | 2 |
| ***MECHA P.C.B. ASSY*** | | | |
| 142 | 620 187 3344 | Mecha P.C.B. Assy | 1 |
| CA851 | 620 187 8998 | Connector 9P Assy | 1 |
| P851 | 620 004 6800 | Semi Fixed (B-5kΩ) | 1 |
| SW851 | 620 016 2159 | Leaf Switch | 1 |
| Q851 | 405 019 2708 | TR 2SC536-F-NP-AA | 1 |
| or | 405 019 3804 | TR 2SC536-G-NP-AA | 1 |
| C851 | 403 072 2703 | CERAMIC 0.022U Z 50V | 1 |
| R851 | 401 025 7409 | CARBON 220 JA 1/6W | 1 |
| R852 | 401 026 0607 | CARBON 270 JA 1/6W | 1 |
| R853 | 401 025 8208 | CARBON 22K JA 1/6W | 1 |
| R854 | 620 004 5339 | LT Resistor 470 | 1 |

**NOTES:**

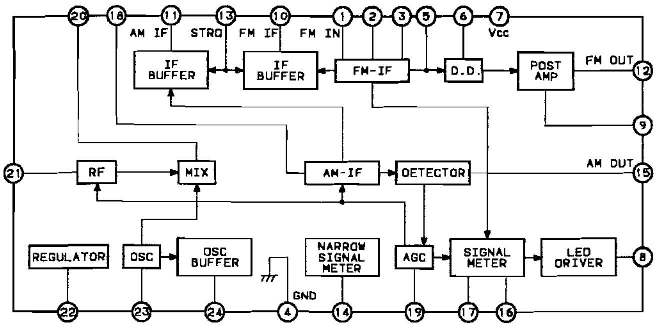
1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

**PRODUCT SAFETY NOTICE**

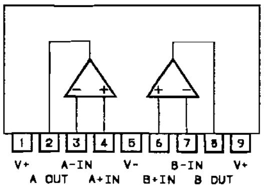
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements musf be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

# IC BLOCK DIAGRAM

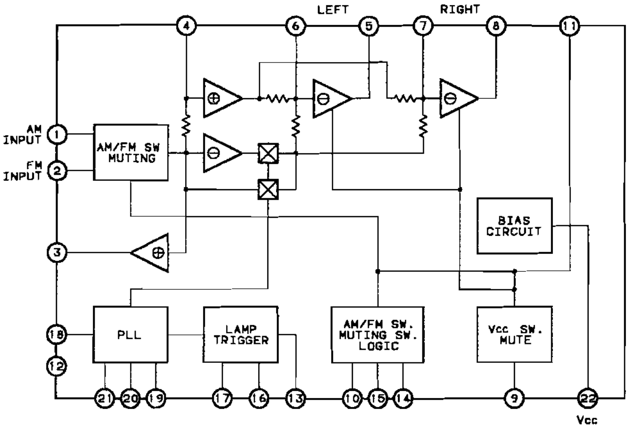
## LA1266 BLOCK DIAGRAM


AM IF
STRQ
FM IF
FM IN
Vcc
IF BUFFER
IF BUFFER
FM-IF
D.D.
POST AMP
FM OUT
RF
MIX
AM-IF
DETECTOR
AM OUT
REGULATOR
OSC
OSC BUFFER
NARROW SIGNAL METER
AGC
SIGNAL METER
LED DRIVER
GND
20
18
11
13
10
1
2
3
5
6
7
12
9
21
15
8
22
23
24
4
14
19
17
16

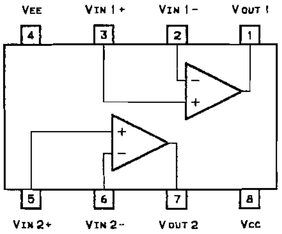
## LA6462S BLOCK DIAGRAM


1
2
3
4
5
6
7
8
9
V+
A-IN
V-
B-IN
V+
A OUT
A+IN
B+IN
B OUT

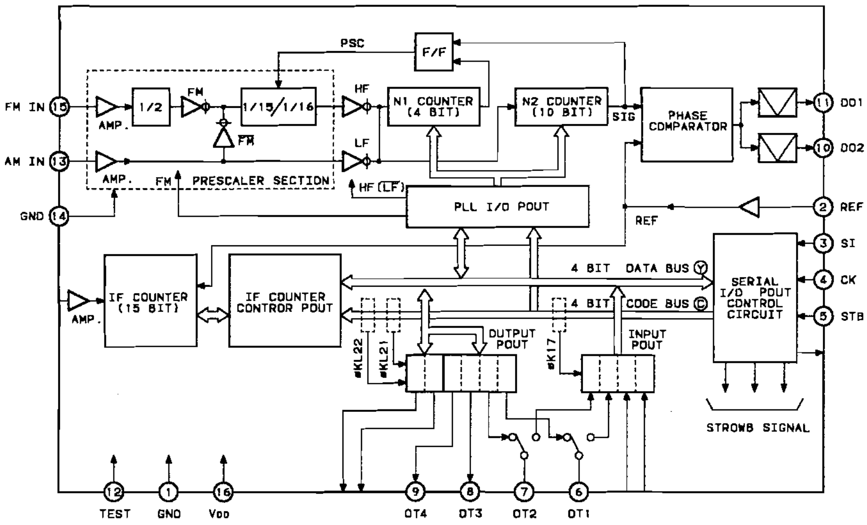
## LA3400 BLOCK DIAGRAM


LEFT
RIGHT
AM INPUT
FM INPUT
AM/FM SW MUTING
BIAS CIRCUIT
PLL
LAMP TRIGGER
AM/FM SW. MUTING SW. LOGIC
Vcc SW. MUTE
Vcc
4
6
5
7
8
11
1
2
3
18
12
21
20
19
17
16
13
10
15
14
9
22

## LA6458DS BLOCK DIAGRAM

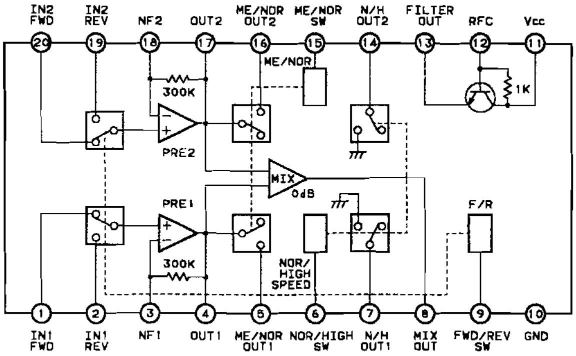

VEE
VIN 1+
VIN 1-
VOUT 1
4
3
2
1
5
6
7
8
VIN 2+
VIN 2-
VOUT 2
Vcc

## TC9171P BLOCK DIAGRAM

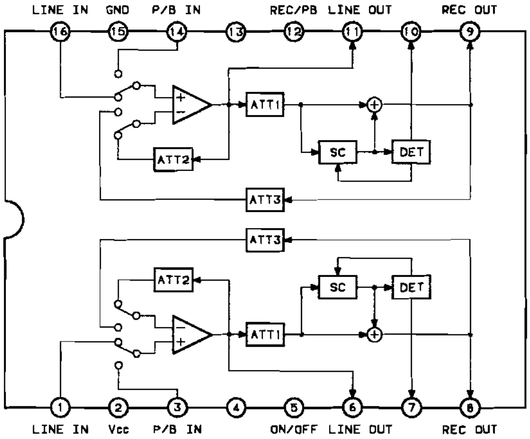

PSC
F/F
FM IN
AM IN
GND
AMP.
1/2
FM
1/15/1/16
FM
HF
LF
N1 COUNTER (4 BIT)
N2 COUNTER (10 BIT)
SIG
PHASE COMPARATOR
DO1
DO2
AMP.
FM
PRESCALER SECTION
HF (LF)
PLL I/O POUT
REF
REF
SI
CK
STB
4 BIT DATA BUS Ⓨ
4 BIT CODE BUS Ⓒ
SERIAL I/O POUT CONTROL CIRCUIT
IF COUNTER (15 BIT)
IF COUNTER CONTROR POUT
AMP.
OUTPUT POUT
INPUT POUT
*KL22
*KL21
*K17
STROWB SIGNAL
TEST
GND
VDD
OT4
OT3
OT2
OT1
15
13
14
11
10
2
3
4
5
12
1
16
9
8
7
6

# IC BLOCK DIAGRAM (Continued)

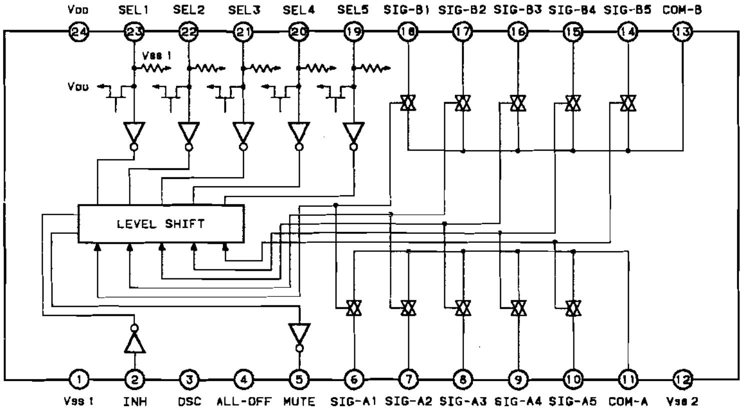
## LA3246 BLOCK DIAGRAM


IN2 FWD
IN2 REV
NF2
OUT2
ME/NOR OUT2
ME/NOR SW
N/H OUT2
FILTER OUT
RFC
Vcc
20
19
18
17
16
15
14
13
12
11
ME/NOR
300K
1K
PRE2
MIX
0dB
PRE1
F/R
300K
NOR/HIGH SPEED
1
2
3
4
5
6
7
8
9
10
IN1 FWD
IN1 REV
NF1
OUT1
ME/NOR OUT1
NOR/HIGH SW
N/H OUT1
MIX OUT
FWD/REV SW
GND

## CXA1101P BLOCK DIAGRAM

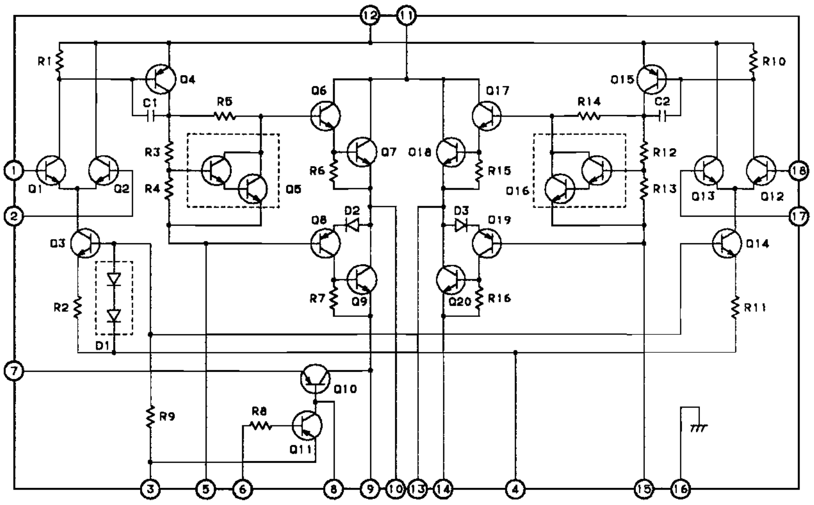

LINE IN
GND
P/B IN
REC/PB
LINE OUT
REC OUT
16
15
14
13
12
11
10
9
ATT1
ATT2
SC
DET
ATT3
ATT3
ATT2
SC
DET
ATT1
1
2
3
4
5
6
7
8
LINE IN
Vcc
P/B IN
ON/OFF
LINE OUT
REC OUT

## TC9152P BLOCK DIAGRAM

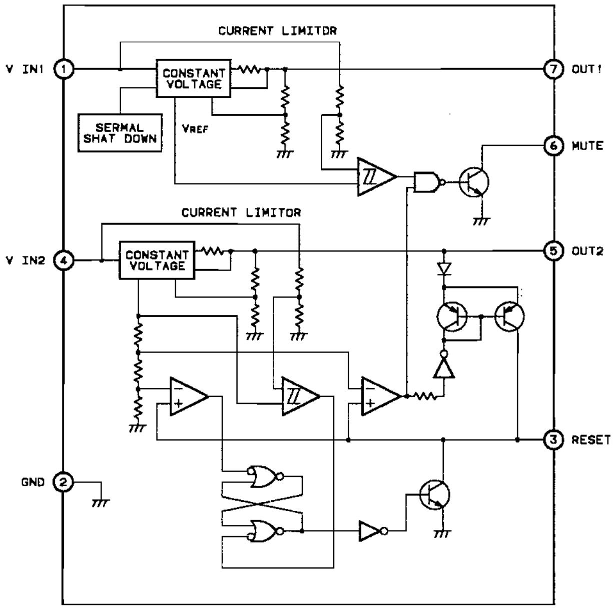

VDD
SEL1
SEL2
SEL3
SEL4
SEL5
SIG-B1
SIG-B2
SIG-B3
SIG-B4
SIG-B5
COM-B
24
23
22
21
20
19
18
17
16
15
14
13
Vss1
VDD
LEVEL SHIFT
1
2
3
4
5
6
7
8
9
10
11
12
Vss1
INH
OSC
ALL-OFF
MUTE
SIG-A1
SIG-A2
SIG-A3
SIG-A4
SIG-A5
COM-A
Vss2

# IC BLOCK DIAGRAM (Continued)

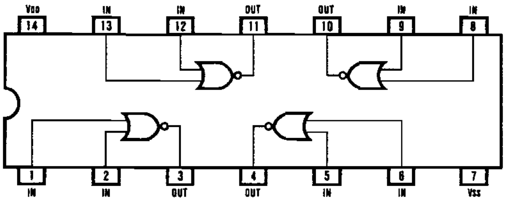
## STK4142MK2 BLOCK DIAGRAM


12
11
R1
Q4
C1
R5
Q6
Q17
R14
C2
Q15
R10
R3
Q7
Q18
R12
R6
R15
1
Q1
Q2
R4
Q5
Q16
R13
Q13
Q12
18
2
D2
D3
17
Q3
Q8
Q19
Q14
R2
R7
Q9
Q20
R16
R11
D1
7
Q10
R9
R8
Q11
3
5
6
8
9
10
13
14
4
15
16

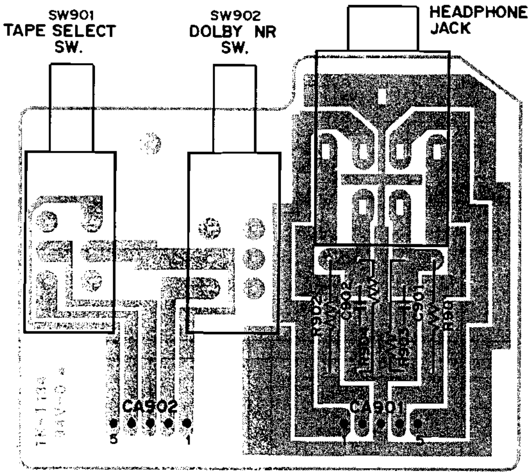
## LA5667 BLOCK DIAGRAM


CURRENT LIMITOR
V IN1
1
CONSTANT VOLTAGE
7
OUT1
SERMAL SHAT DOWN
VREF
6
MUTE
CURRENT LIMITOR
V IN2
4
CONSTANT VOLTAGE
5
OUT2
3
RESET
GND
2

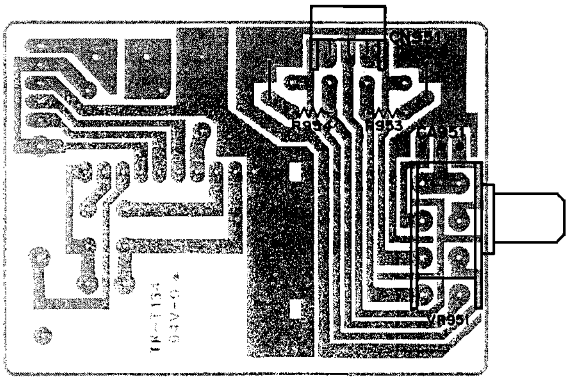
## LC4001B BLOCK DIAGRAM


VDD
14
IN
13
IN
12
OUT
11
OUT
10
IN
9
IN
8
1
IN
2
IN
3
OUT
4
OUT
5
IN
6
IN
7
VSS

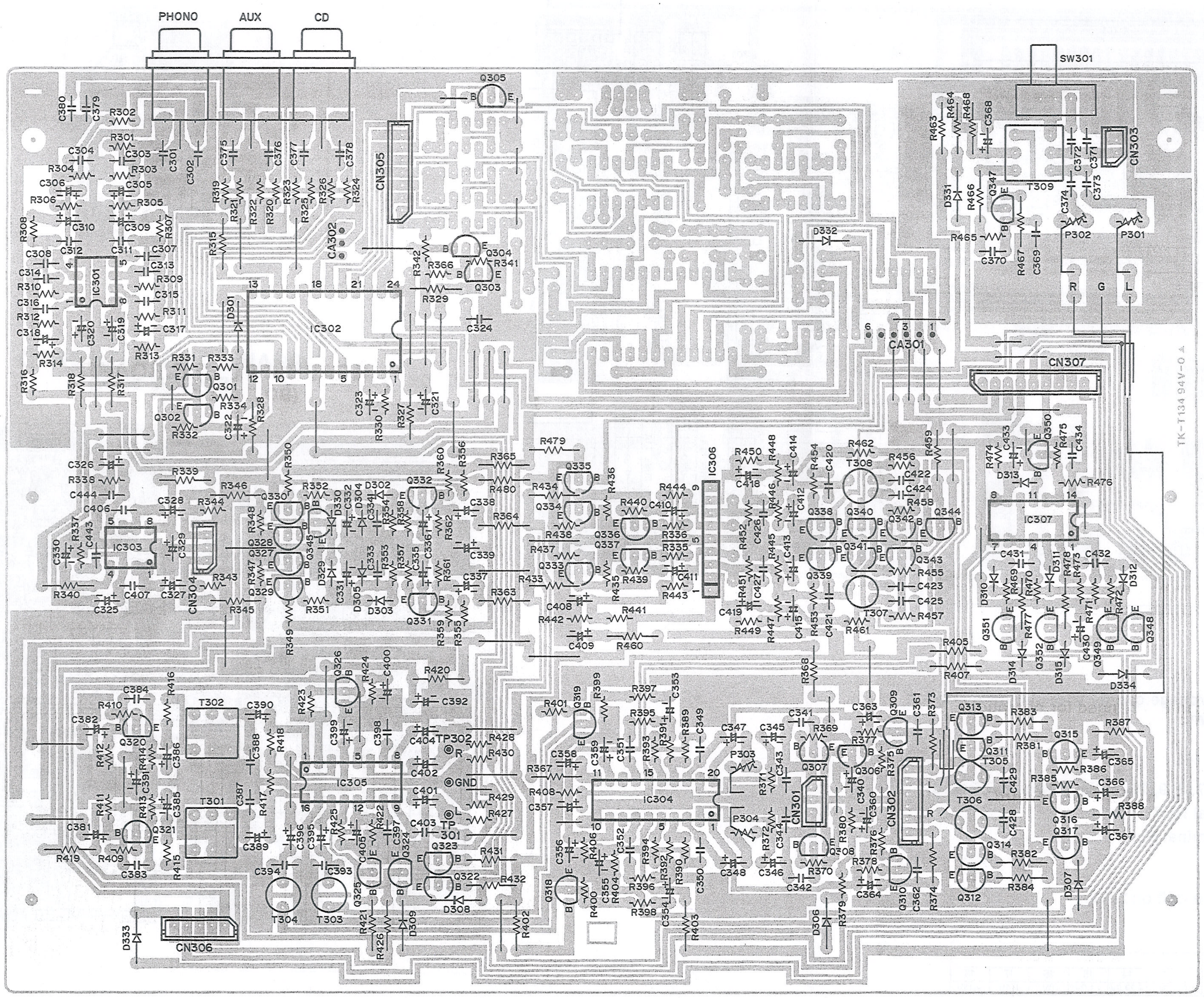
## HEAD PHONE P.C.BOARD
### (BOTTOM VIEW)


SW901
TAPE SELECT
SW.
SW902
DOLBY NR
SW.
HEADPHONE
JACK
R902
C902
R904
R903
C901
R901
CA902
5
1
CA901
1
5

## VOLUME P.C.BOARD
### (BOTTOM VIEW)


CN951
R954
R953
CA951
VR951

# MAIN PRINTED CIRCUIT BOARD
## (BOTTOM VIEW)



**NOTES:**
The IC305 (Dolby IC CXA1101P) on the Main P.C.B. Assy of TAC-M80 is changed to HA12136 from the lot number of 10,001. With this IC change, the Main P.C.B. Assy is changed as follows.

| Item | Version 1 | Version 2 |
|---|---|---|
| Differences | 1 ~ 10,000 | 10,001 and after |
| Main P.C.B. Assy | 620 187 3306 | 620 192 4596 |
| Main P.C.Board | 620 187 2958 | 620 192 4374 |
| IC305 (Dolby IC) | IC CXA1101P | IC HA12136 |
| C397, 398 | 0.68µF/50 | 0.22µF/50 |
| C399 | 470µF/10 | 1µF/50 |
| R363, 364 | 6.8kΩ 1/4W | 68kΩ 1/4W |
| R421 | 10kΩ 1/4W | 22kΩ 1/4W |
| R423 | 10kΩ 1/6W | 22kΩ 1/6W |
| R425 | 43kΩ 1/6W | 18kΩ 1/6W |
| R426 | 22kΩ 1/4W | Deleted |
| R435, 436 | 18kΩ 1/6W | 4.7kΩ 1/6W |
| R439, 440 | 39kΩ 1/6W | 12kΩ 1/6W |
| Headphone P.C.B. Assy | 620 187 3368 | 620 192 4602 |

**TRANSISTOR DC VOLTAGES**

| SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E |
|---|---|---|---|---|---|---|---|---|---|
| Q301 | 2SC2878 | 0V | 0V | 0V | Q327 | 2SC536 | 0.3V | 0V | 0V |
| Q302 | 2SC2878 | 0V | 0V | 0V | Q328 | 2SC536 | 0.3V | 0V | 0V |
| Q303 | 2SC3400 | 0V | 14.4V | 0V | Q329 | 2SC536 | 0.2V | 12.9V | 0.3V |
| Q304 | 2SC3400 | 4.7V | 0V | 0V | Q330 | 2SC536 | 0V | 12.9V | 0.1V |
| Q305 | 2SC3400 | 4.7V | 0V | 0V | Q331 | 2SC536 | 2.3V | 7.2V | 1.7V |
| Q306 | 2SC3400 | 0V | 4.9V | 0V | Q332 | 2SC536 | 2.2V | 7.3V | 1.6V |
| Q307 | 2SC536 | 0.6V | 0V | 0V | Q333 | 2SD1012 | 0.6V | 0V | 0V |
| Q308 | 2SC536 | 0.6V | 0V | 0V | Q334 | 2SD1012 | 0.6V | 0V | 0V |
| Q309 | 2SC3708 | 0V | 0V | 0V | Q335 | 2SC3400 | 0V | 3.6V | 0V |
| Q310 | 2SC3708 | 0V | 0V | 0V | Q336 | 2SC536 | 0.6V | 0V | 0V |
| Q311 | 2SC3708 | 0.6V | 0V | 0V | Q337 | 2SC536 | 0.6V | 0.2V | 0V |
| Q312 | 2SC3708 | 0.7V | 0V | 0V | Q338 | 2SC3400 | 0V | 0V | 0V |
| Q313 | 2SC3708 | 0.7V | 0V | 0V | Q339 | 2SC3400 | 0V | 0V | 0V |
| Q314 | 2SC3708 | 0.6V | 0V | 0V | Q340 | 2SC3400 | 0V | 0.1V | 0V |
| Q315 | 2SA1016 | 8.7V | 9.4V | 9.5V | Q341 | 2SC3400 | 0V | 0.2V | 0V |
| Q316 | 2SC536 | 0.6V | 0V | 0V | Q342 | 2SC3400 | 8.6V | 0V | 0V |
| Q317 | 2SC3400 | 0V | 0.7V | 0V | Q343 | 2SC3400 | 8.4V | 0V | 0V |
| Q318 | 2SD1012 | 0.6V | 0V | 0V | Q344 | 2SC3400 | 0V | 8.5V | 0V |
| Q319 | 2SD1012 | 0.6V | 0V | 0V | Q345 | 2SC536 | 0.6V | 0.4V | 0V |
| Q320 | 2SC3331 | 9.0V | 11.8V | 0V | Q347 | 2SC3708 | 0V | 0V | 0V |
| Q321 | 2SC3331 | 9.0V | 11.8V | 8.4V | Q348 | 2SA1346 | 0V | 13.2V | 13.3V |
| Q322 | 2SD1012 | 0.6V | 0V | 0V | Q349 | 2SC3400 | 12.6V | 0V | 0V |
| Q323 | 2SD1012 | 0.6V | 0V | 0V | Q350 | 2SC3400 | 0V | 0V | 0V |
| Q324 | 2SC3400 | 0V | 0V | 0V | Q351 | 2SC3400 | 0V | 10.4V | 0V |
| Q325 | 2SC536 | 0V | 6.3V | 0V | Q352 | 2SC3400 | 3.4V | 0V | 0V |
| Q326 | 2SC3400 | 0V | 6.2V | 0V | | | | | |

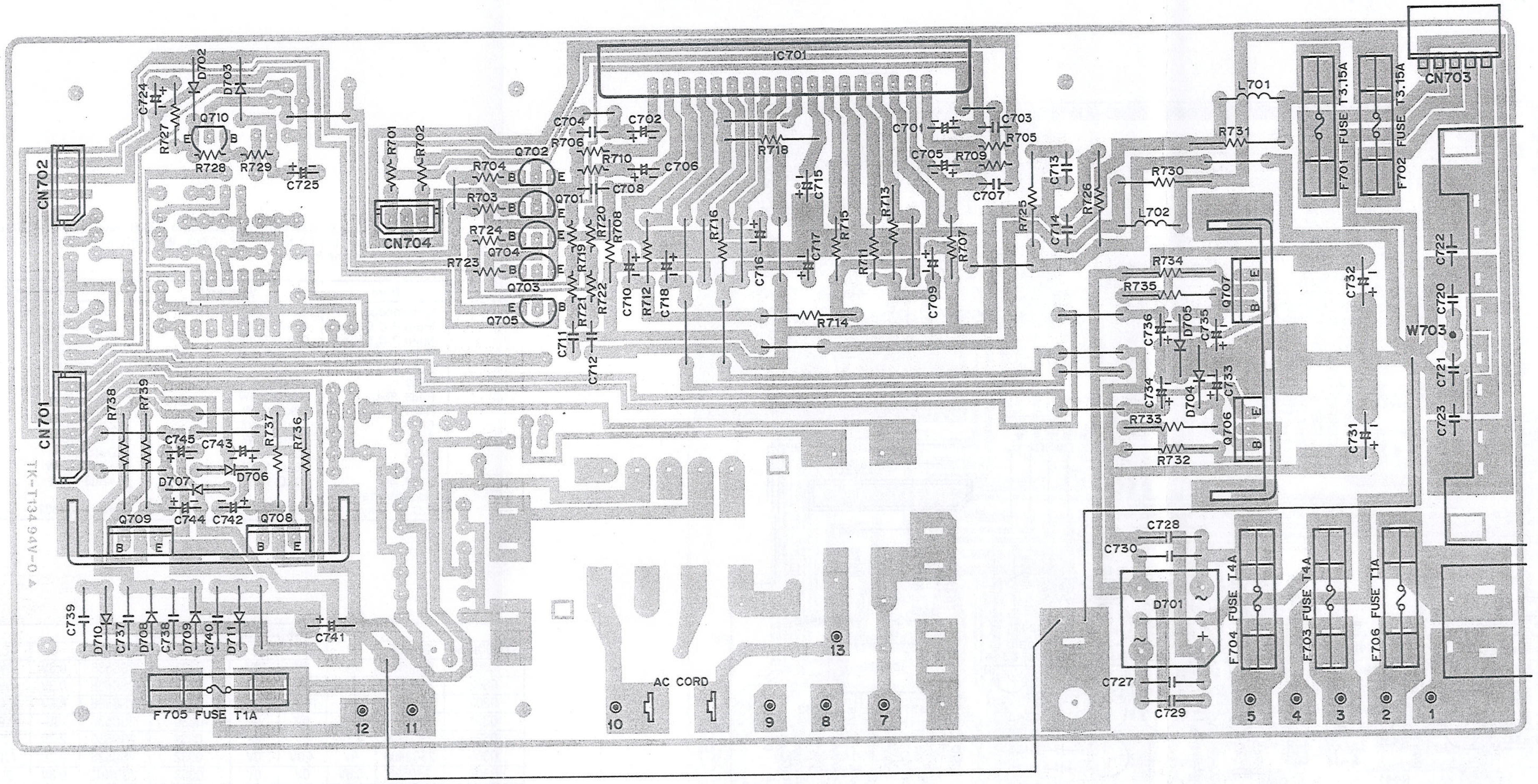
**IC PIN NUMBERS DC VOLTAGES**

| SYMBOL No. | DEVICE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC301 | LA6458 | 0V | 0V | 0V | −15.1V | 0V | 0V | 0V | 14.8V | | | | | | | | | | | | |
| IC302 | TC9152P | 0V | 14.4V | 0V | 0V | 0V | 0V | 0V | 0V | 0V | 0V | 0V | −15.9V | 0V | 0V | 0.1V | 0V | 0V | 0V | 13.5V | 0V |
| | | 21 | 22 | 23 | 24 | | | | | | | | | | | | | | | | |
| | | 0V | 0V | 0V | 14.4V | | | | | | | | | | | | | | | | |
| IC303 | LA6458 | 0V | 0V | 0V | −15.1V | 0V | 0V | 0V | 14.9V | | | | | | | | | | | | |

**IC PIN NUMBERS DC VOLTAGES**

| SYMBOL No. | DEVICE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC304 | LA3246 | 0V | 0V | 0.5V | 5.2V | 5.2V | 0V | 0.5V | 5.1V | 7.3V | 0V | 12.0V | 11.9V | 11.2V | 0.4V | 7.2V | 4.9V | 5.0V | 0.5V | 0V | 0V |
| IC305 | CXA1101P | 6.4V | 12.6V | 6.4V | 6.4V | 6.2V | 6.6V | 0.3V | 6.5V | 6.5V | 0.4V | 6.6V | 6.3V | 1.2V | 6.4V | 0V | 6.4V | | | | |
| IC306 | LA6462S | 12.7V | 7.0V | 7.0V | 6.8V | 0V | 6.8V | 6.9V | 6.9V | 12.7V | | | | | | | | | | | |
| IC307 | LC4001B | 0V | 0V | 13.2V | 13.1V | 0V | 0V | 0V | 12.7V | 12.7V | 0V | 13.2V | 0.2V | 0.1V | 13.2V | | | | | | |

# POWER PRINTED CIRCUIT BOARD
(BOTTOM VIEW)


IC701
CN702
CN703
CN704
CN701
L701
L702
W703
F701 FUSE T3.15A
F702 FUSE T3.15A
F704 FUSE T4A
F703 FUSE T4A
F706 FUSE T1A
F705 FUSE T1A
AC CORD
1
2
3
4
5
7
8
9
10
11
12
13
TK-T134 94V-0

## IMPORTANT NOTE

The Unit has been Factory-adjusted for operation on 220V AC. The voltage can be changed for operation on 110V AC by making the following changes on the Unit inside shown.

1. Remove the AC plug from the wall outlet.
2. Remove the screws securing the cover.
3. Disconnect the Power Trans lead from Wire Wrap Terminal (No. 7, 8, 9, 10) of the Power P.C.Board.
4. Connect the Gray and Orange leads to Power P.C.Board Terminal No.7.
5. Connect the Yellow and Black leads to the Power P.C.Board Terminal No.9.
6. Connect the Violet lead to the Power P.C.Board Terminal No.10.

The Unit is now ready 110V operation. DO NOT attempt to operate the Unit on 220V.

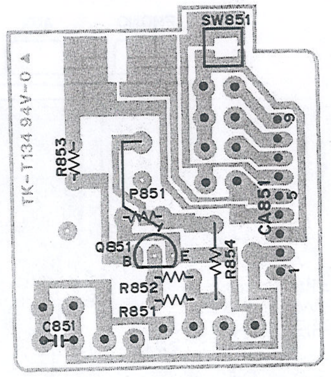
IC PIN NUMBERS DC VOLTAGES

| SYMBOL No. | DEVICE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC701 | STK4142 | −0.1V | −0.1V | 0V | −26.9V | −1.3V | 0V | −28.7V | −29.4V | −29.8V | 0V | 29.8V | 28.3V | 0V | −29.8V | −1.3V | 0V | 0.1V | −0.1V |

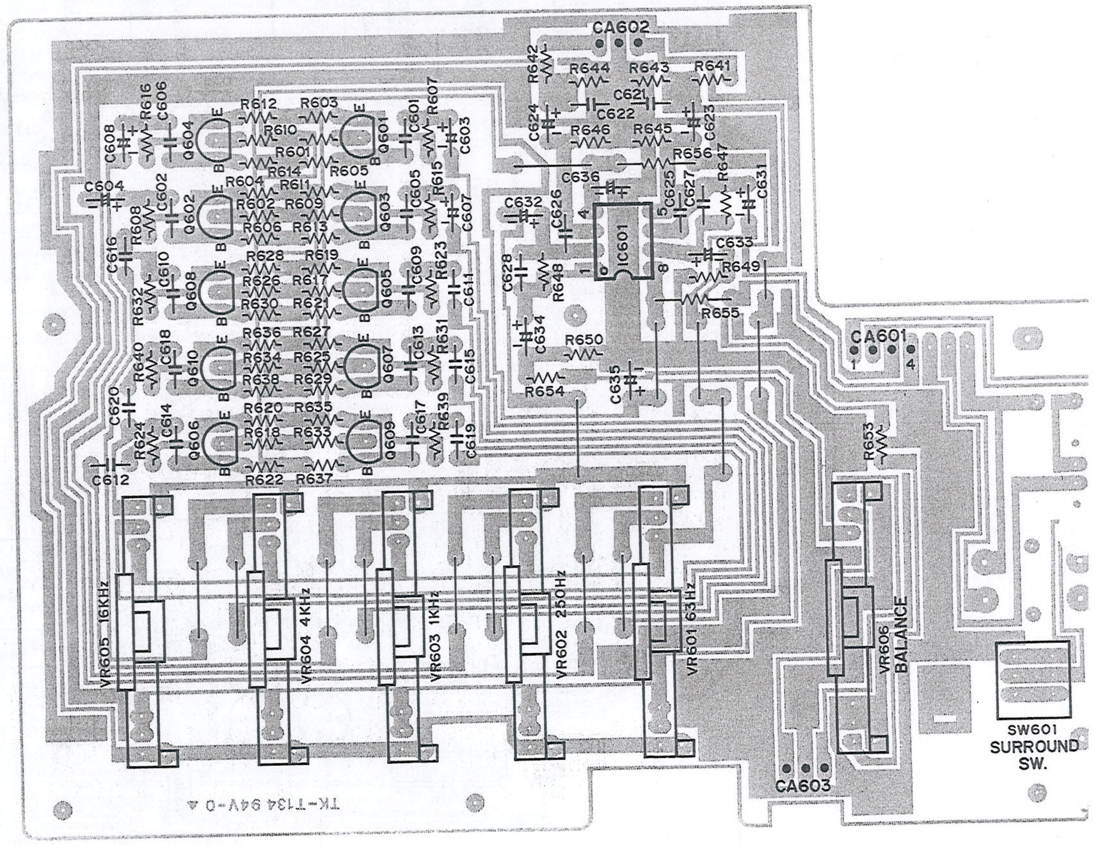
TRANSISTOR DC VOLTAGES

| SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q701 | 2SD1012 | 0V | 0V | 0V | Q705 | 2SA1346 | 0V | 13.3V | 13.3V | Q709 | 2SA1913 | 12.4V | 20.2V | 12.1V |
| Q702 | 2SD1012 | 0V | 0V | 0V | Q706 | 2SD1913 | 15.9V | 27.7V | 15.3V | Q710 | 2SA608 | 12.8V | 0V | 13.0V |
| Q703 | 2SC536 | 0.7V | 0V | 0V | Q707 | 2SB1274 | −15.6V | −28.0V | −15.0V | | | | | |
| Q704 | 2SC536 | 0.7V | 0V | 0V | Q708 | 2SA1913 | 14.0V | 20.1V | 13.3V | | | | | |

# MECHA P.C.BOARD
(BOTTOM VIEW)


SW851
CA851
P851
Q851
R851
R852
R853
R854
C851
TK-T134 94V-0

# GRAPHIC EQ. P.C.BOARD
(BOTTOM VIEW)


CA602
CA601
CA603
IC601
VR605 16KHz
VR604 4KHz
VR603 1KHz
VR602 250Hz
VR601 63Hz
VR606 BALANCE
SW601 SURROUND SW.
TK-T134 94V-0

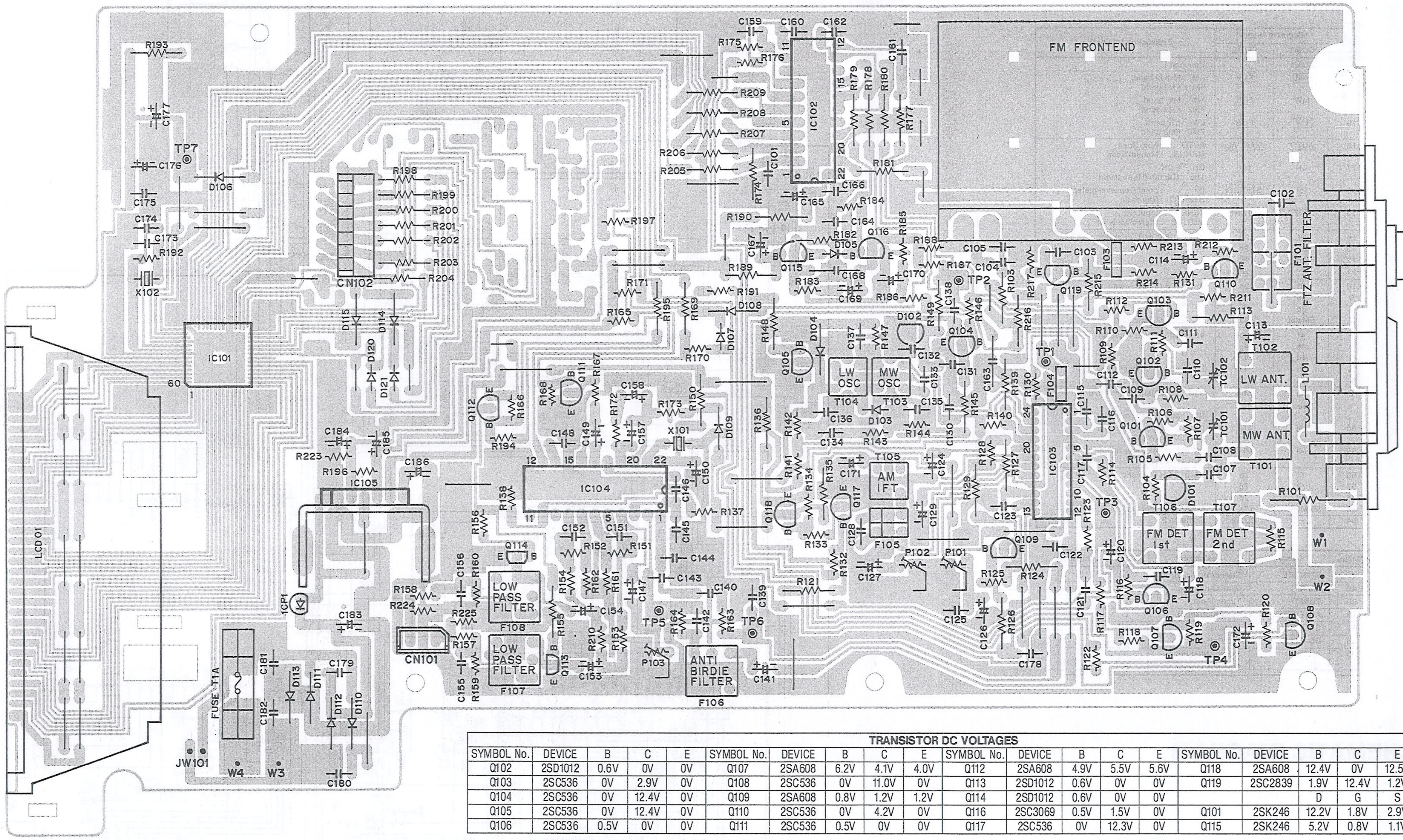
IC PIN NUMBERS DC VOLTAGES

| SYMBOL No. | DEVICE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| IC601 | LA6458D | 0V | 0V | 0V | −13.9V | 0V | 0V | 0V | 13.7V |

TRANSISTOR DC VOLTAGES

| SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E |
|---|---|---|---|---|---|---|---|---|---|
| Q601 | 2SC536 | −1.0V | 13.1V | −1.6V | Q606 | 2SC536 | −0.2V | 13.1V | −0.8V |
| Q602 | 2SC536 | −1.0V | 13.1V | −1.6V | Q607 | 2SC536 | −0.2V | 13.1V | −0.8V |
| Q603 | 2SC536 | −0.7V | 13.1V | −1.3V | Q608 | 2SC536 | −0.2V | 13.1V | −0.8V |
| Q604 | 2SC536 | −0.7V | 13.1V | −1.3V | Q609 | 2SC536 | −0.1V | 13.1V | −0.7V |
| Q605 | 2SC536 | −0.2V | 13.1V | −0.8V | Q610 | 2SC536 | −0.1V | 13.1V | −0.7V |

# TUNER PRINTED CIRCUIT BOARD
## (BOTTOM VIEW)


FM FRONTEND
FM (75Ω)
AM
ANTENNA TERMINAL
FTZ ANT. FILTER
F101
LW ANT.
MW ANT.
T101
T102
LW OSC
MW OSC
T103
T104
AM IFT
T105
FM DET 1st
FM DET 2nd
T106
T107
LOW PASS FILTER
F108
LOW PASS FILTER
F107
ANTI BIRDIE FILTER
F106
F104
F105
IC101
IC102
IC103
IC104
IC105
CN101
CN102
LCD01
FUSE T1A
JW101
W1
W2
W3
W4
TP1
TP2
TP3
TP4
TP5
TP6
TP7
X101
X102

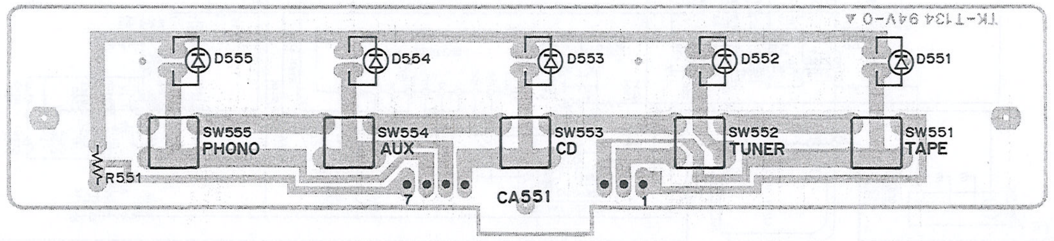
**TRANSISTOR DC VOLTAGES**

| SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E | SYMBOL No. | DEVICE | B | C | E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q102 | 2SD1012 | 0.6V | 0V | 0V | Q107 | 2SA608 | 6.2V | 4.1V | 4.0V | Q112 | 2SA608 | 4.9V | 5.5V | 5.6V | Q118 | 2SA608 | 12.4V | 0V | 12.5V |
| Q103 | 2SC536 | 0V | 2.9V | 0V | Q108 | 2SC536 | 0V | 11.0V | 0V | Q113 | 2SD1012 | 0.6V | 0V | 0V | Q119 | 2SC2839 | 1.9V | 12.4V | 1.2V |
| Q104 | 2SC536 | 0V | 12.4V | 0V | Q109 | 2SA608 | 0.8V | 1.2V | 1.2V | Q114 | 2SD1012 | 0.6V | 0V | 0V | | | D | G | S |
| Q105 | 2SC536 | 0V | 12.4V | 0V | Q110 | 2SC536 | 0V | 4.2V | 0V | Q116 | 2SC3069 | 0.5V | 1.5V | 0V | Q101 | 2SK246 | 12.2V | 1.8V | 2.9V |
| Q106 | 2SC536 | 0.5V | 0V | 0V | Q111 | 2SC536 | 0.5V | 0V | 0V | Q117 | 2SC536 | 0V | 12.3V | 0V | Q115 | 2SK246 | 5.2V | 0.8V | 1.1V |

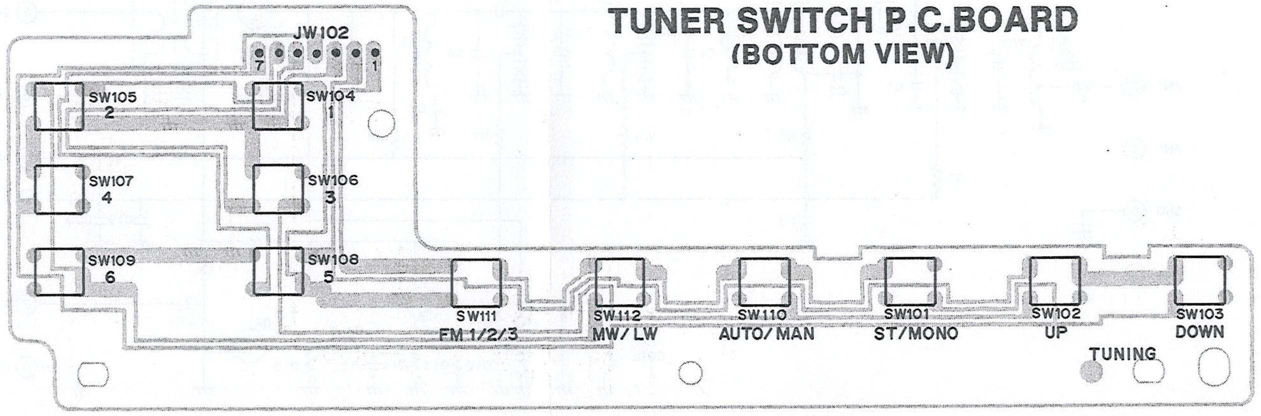
**IC PIN NUMBERS DC VOLTAGES**

| SYMBOL No. | DEVICE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC101 | TSE2039 | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V |
| | | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| | | 2.4V | 2.4V | 4.9V | 0V | 0.2V | 0.2V | 0V | 0.1V | 0.1V | 0.1V | 0.1V | 0V | 0V | 0.2V | 0V | 0V | 5.3V | 3.6V | 4.1V | 4.9V |
| | | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| | | 4.9V | 0V | 0V | 0V | 0V | 2.4V | 4.9V | 4.9V | 0V | 2.1V | 2.1V | 0V | 4.9V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V | 2.4V |
| IC102 | TC9171P | 0V | 2.4V | 0V | 0V | 0V | 0V | 0V | 0V | 0V | 5.1V | 0V | 0V | 0V | 0V | 0V | 0.8V | 0.8V | 0V | 2.2V | 0V |
| | | 21 | 22 | | | | | | | | | | | | | | | | | | |
| | | 2.3V | 5.1V | | | | | | | | | | | | | | | | | | |
| IC103 | LA1266 | 2.5V | 2.5V | 2.5V | 0V | 12.5V | 12.5V | 12.5V | 4.1V | 4.3V | 2.1V | 1.8V | 3.1V | 11.0V | 1.4V | 1.2V | 0V | 0V | 2.5V | 1.2V | 0V |
| | | 21 | 22 | 23 | 24 | | | | | | | | | | | | | | | | |
| | | 4.0V | 4.0V | 4.0V | 3.2V | | | | | | | | | | | | | | | | |
| IC104 | LA3400 | 3.3V | 3.3V | 3.3V | 3.3V | 6.9V | 3.3V | 3.3V | 6.9V | 3.2V | 0V | 0V | 0V | 5.4V | 4.9V | 0V | 1.7V | 3.1V | 2.8V | 2.9V | 2.9V |
| | | 21 | 22 | | | | | | | | | | | | | | | | | | |
| | | 3.5V | 12.7V | | | | | | | | | | | | | | | | | | |
| IC105 | LA5667 | 19.3V | 0V | 4.9V | 19.2V | 5.6V | 4.9V | 13.2V | | | | | | | | | | | | | |

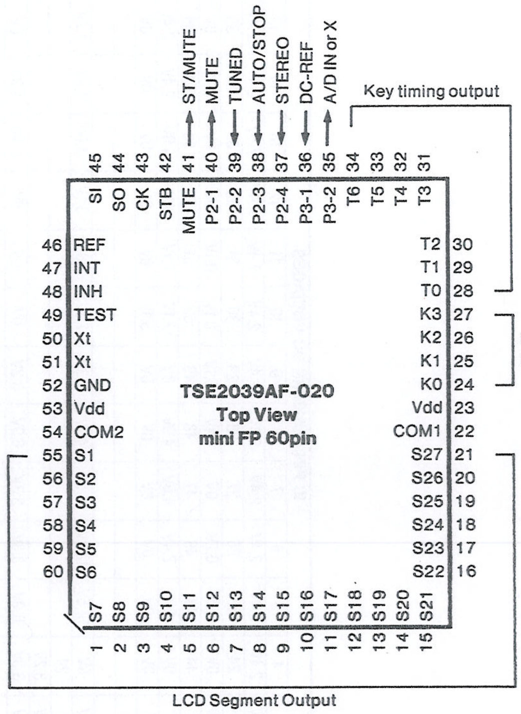
# FUNCTION P.C.BOARD
## (BOTTOM VIEW)


TK-T134 94V-0 A
D555
D554
D553
D552
D551
SW555 PHONO
SW554 AUX
SW553 CD
SW552 TUNER
SW551 TAPE
R551
CA551
7
1

# TUNER SWITCH P.C.BOARD
## (BOTTOM VIEW)


JW102
7
1
SW105 2
SW104 1
SW107 4
SW106 3
SW109 6
SW108 5
SW111 FM 1/2/3
SW112 MW/LW
SW110 AUTO/MAN
SW101 ST/MONO
SW102 UP
SW103 DOWN
TUNING

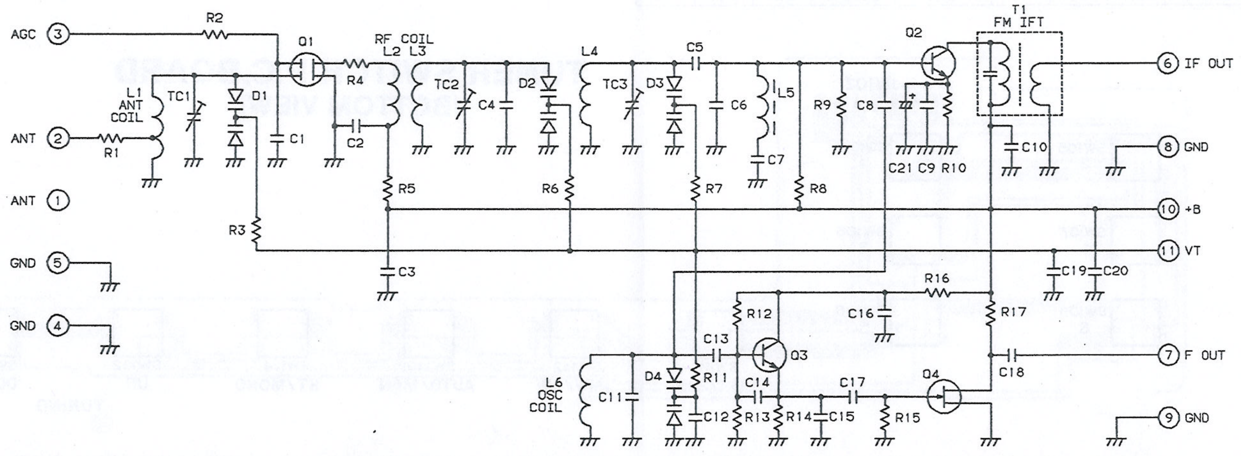
## CPU PORT DESIGNATIONS (TSE 2039AF-020)


ST/MUTE
MUTE
TUNED
AUTO/STOP
STEREO
DC-REF
A/D IN or X
Key timing output
45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
SI SO CK STB MUTE P2-1 P2-2 P2-3 P2-4 P3-1 P3-2 T6 T5 T4 T3
46 REF
47 INT
48 INH
49 TEST
50 Xt
51 Xt
52 GND
53 Vdd
54 COM2
55 S1
56 S2
57 S3
58 S4
59 S5
60 S6
T2 30
T1 29
T0 28
K3 27
K2 26
K1 25
K0 24
Vdd 23
COM1 22
S27 21
S26 20
S25 19
S24 18
S23 17
S22 16
Key Input
TSE2039AF-020
Top View
mini FP 60pin
S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
LCD Segment Output

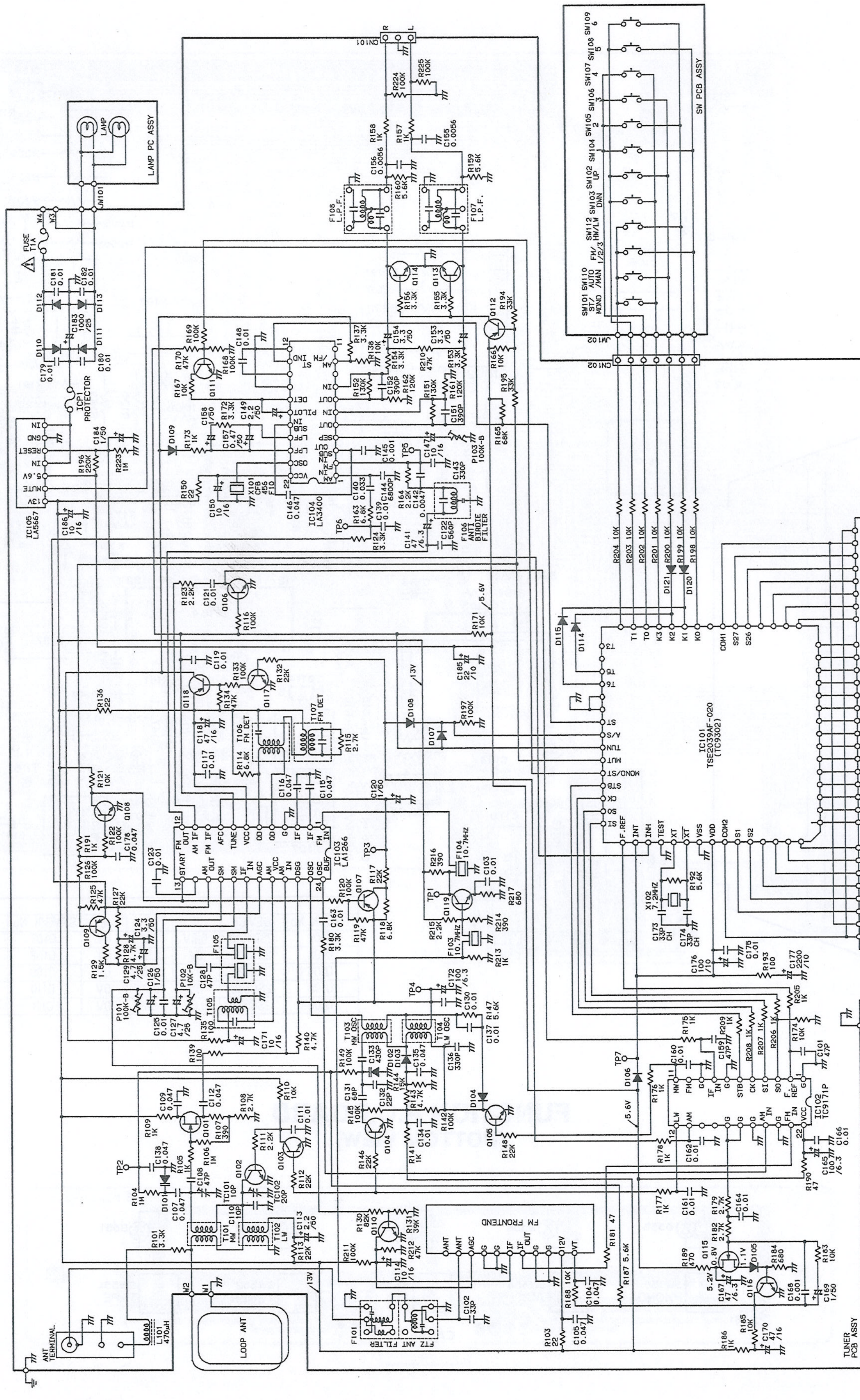
| Port | Pin No. | Segment Name |  | Explanation of Function |
|---|---|---|---|---|
|  |  | COM1 | COM2 |  |
| COM1 | 22 | COM1 | – | Common 1 |
| S27 | 21 | AM | FM1 | AM : MW (2 band)<br>FM1 : FM1 band |
| S26 | 20 | MW | FM2 | MW : MW band<br>FM2 : FM2 band |
| S25 | 19 | LW | FM3 | LW : LW band<br>FM3 : FM3 band |
| S24 | 18 | AUTO | MANUAL | AUTO : Auto Scan<br>MANUAL : Manual Scan |
| S23 | 17 | CH | 1bc | CH : 6 CH<br>1bc : 108.00MHz segment |
| S22 | 16 | [5] | STEREO | [5] : point 5 on level meter<br>STEREO : Stereo In |
| S21 | 15 | TUNED | MUTING | TUNED : Input On<br>MUTING : Stereo/Mute On |
| S20 | 14 | 2f | 2b | 2f-a : 108.00MHz segment |
| S19 | 13 | 2e | 2g |  |
| S18 | 12 | 2d | 2c |  |
| S17 | 11 | – | 2a |  |
| S16 | 10 | 3f | 3b | 3f-a : 108.00MHz segment |
| S15 | 9 | 3e | 3g |  |
| S14 | 8 | 3d | 3c |  |
| S13 | 7 | FM dot | 3a | : 108.00MHz mark |
| S12 | 6 | 4f | 4b | 4f-a : 108.00MHz segment |
| S11 | 5 | 4e | 4g |  |
| S10 | 4 | 4d | 4c |  |
| S9 | 3 | [1] | 4a | [1] : point 1 on level meter (normally ON) |
| S8 | 2 | 5g | 5be | 5g-f : 108.00MHz segment, 0/5 · |
| S7 | 1 | 5acdf | [2] | [2] : point 2 on level meter |
| S6 | 60 | [3] | kHz | [3] : point 3 on level meter<br>kHz : MW/LW unit |
| S5 | 59 | [4] | MHz | [4] : point 4 on level meter<br>MHz : FM unit |
| S4 | 58 | 7f | 7b | 75-a: 6 CH segment |
| S3 | 57 | 7e | 7g |  |
| S2 | 56 | 7d | 7c |  |
| S1 | 55 | MEMORY | 7a | MEMORY : Store mode |
| COM2 | 54 | – | COM2 | Common 2 |

| Port | Pin No. | Name | Assignment | Active | Initial |
|---|---|---|---|---|---|
| MUTE | 41 | ST/MUTE | Stereo/Mute Output | L | L |
| P2-1 | 40 | MUTE | Mute Output | L | H |
| P2-2 | 39 | TUNED | Tuned Input | L | – |
| P2-3 | 38 | AUTO/STOP | Auto/Stop Input | L | – |
| P2-4 | 37 | STEREO | Stereo Ind. Input | L | – |
| P3-1 | 36 | DC-REF | A/D Ref Input | – | – |
| P3-2 | 35 | A/D IN<br>or X | Signal Meter Input<br>Function Output | –<br>H | –<br>L |

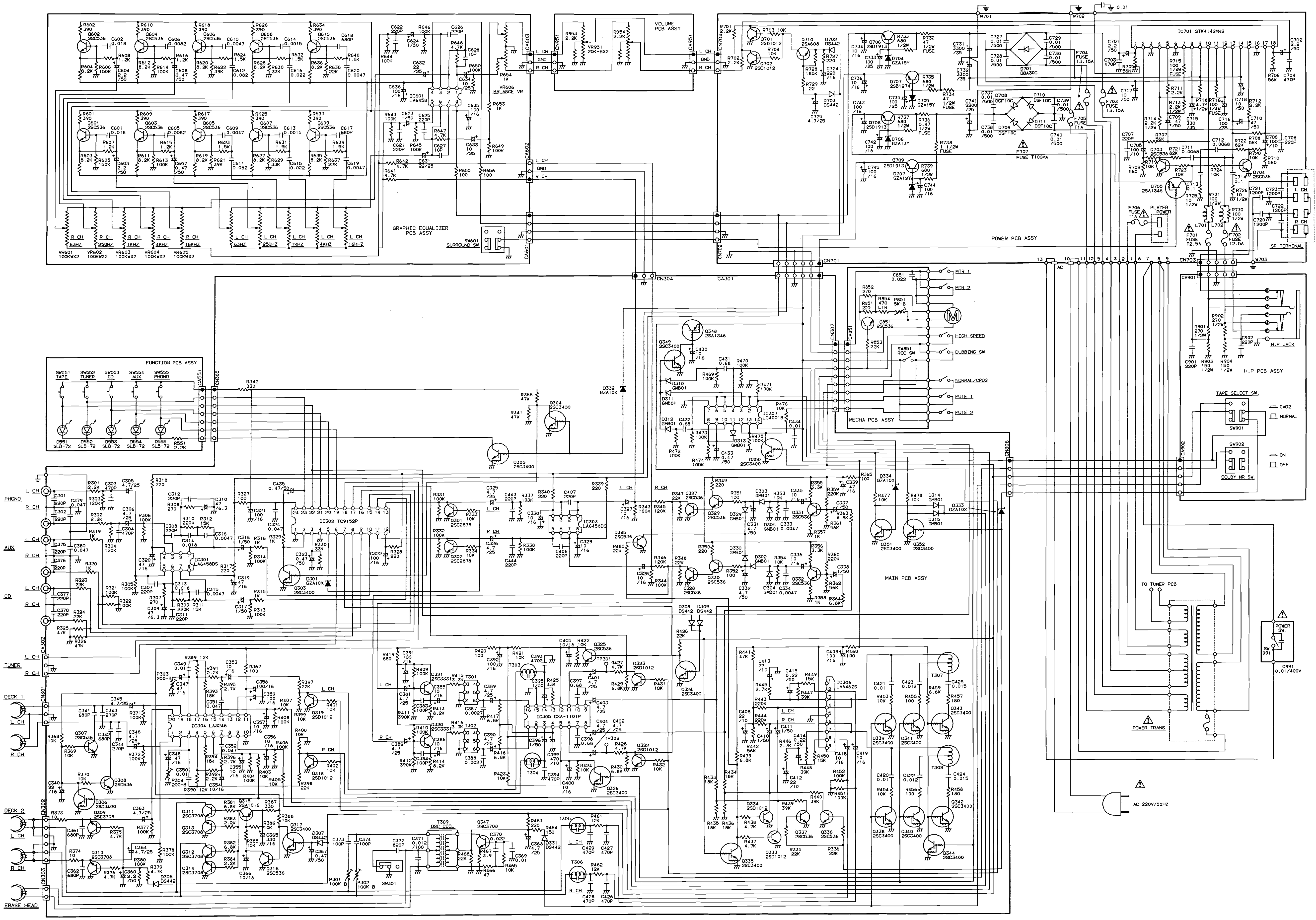
## FM FRONT END SCHEMATIC DIAGRAM


AGC ③
ANT ②
ANT ①
GND ⑤
GND ④
L1 ANT COIL
TC1
D1
R1
R2
R3
Q1
R4
C1
C2
RF COIL L2 L3
TC2
C4
D2
L4
TC3
D3
C5
C6
L5
C7
R5
R6
R7
R8
R9
C8
Q2
T1 FM IFT
C21 C9 R10
C10
C3
⑥ IF OUT
⑧ GND
⑩ +B
⑪ VT
R12
C13
Q3
C16
R16
R17
C18
⑦ F OUT
L6 OSC COIL
C11
D4
R11
C14
C12
R13
R14
C15
C17
Q4
R15
⑨ GND

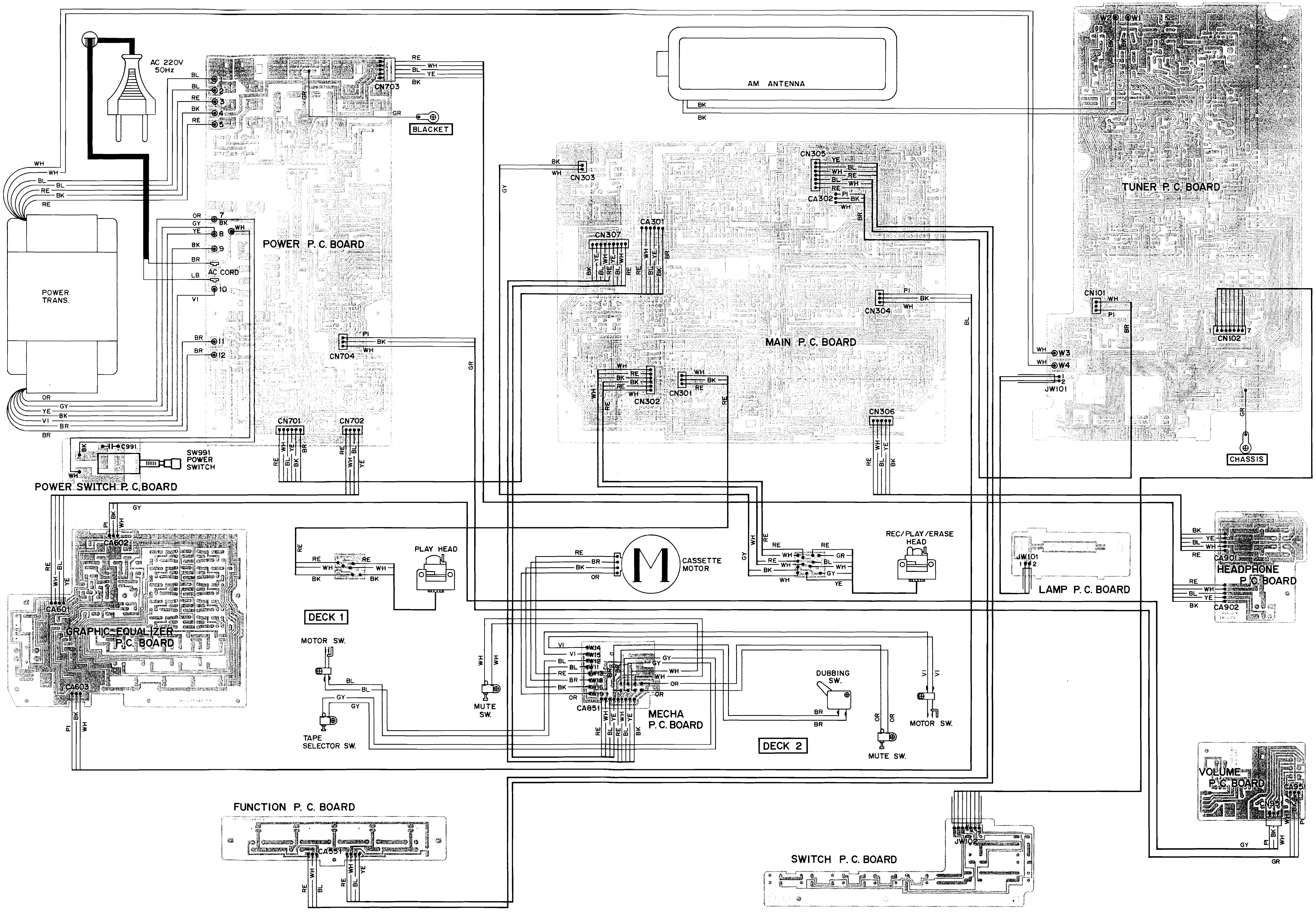
## SCHEMATIC DIAGRAM (Tuner Section)


LAMP PCB ASSY
SW PCB ASSY
SW101 SW110 ST/MONO AUTO/MAN
SW111 SW112 FM/AM 1/2/3
SW103 UP
SW102 DN
SW104
SW105
SW106
SW107
SW108
SW109
CN101
CN102
JW102
FUSE 1A
IC104 LA4057
IC103 LA1266
IC101 TSE2039AF-020 (TC9302)
IC102 TC9171P
LCD1 FTD6410
FM FRONTEND
F12 ANT FILTER
LOOP ANT
ANT TERMINAL
TUNER PCB ASSY
X101
X102
F101
F102
F103
F104
F105
F106
F107
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q109
Q110
Q111
Q112
Q113
Q114
Q115
Q116
Q117
Q118
Q119
OSC PROTECTOR
5.6V
13V
12V

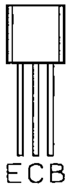
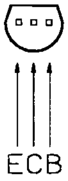
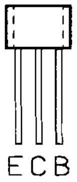
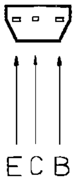
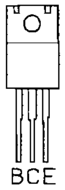
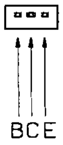
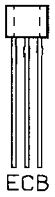
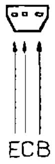
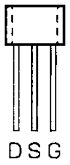
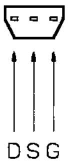
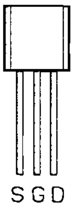
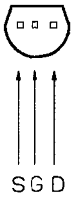
# SCHEMATIC DIAGRAM (Main unit Section)


GRAPHIC EQUALIZER PCB ASSY
VOLUME PCB ASSY
VR606 BALANCE VR
SW601 SURROUND SW
IC601 LA6458
VR601 100KWX2
VR602 100KWX2
VR603 100KWX2
VR604 100KWX2
VR605 100KWX2
R CH 63HZ
R CH 250HZ
R CH 1KHZ
R CH 4KHZ
R CH 16KHZ
L CH 63HZ
L CH 250HZ
L CH 1KHZ
L CH 4KHZ
L CH 16KHZ
VR951 20K-BX2
POWER PCB ASSY
IC701 STK4142MK2
F707 FUSE T100mA
F704 FUSE T3.15A
F703 FUSE T3.15A
F705 FUSE T1A
F706 FUSE T1A
F701 FUSE T2.5A
F702 FUSE T2.5A
PLAYER POWER
SP TERMINAL
L CH
R CH
FUNCTION PCB ASSY
SW551 TAPE
SW552 TUNER
SW553 CD
SW554 AUX
SW555 PHONO
D551 SLB-72
D552 SLB-72
D553 SLB-72
D554 SLB-72
D555 SLB-72
MECHA PCB ASSY
MTR 1
MTR 2
HIGH SPEED
DUBBING SW
SW851 REC SW
NORMAL/CRO2
MUTE 1
MUTE 2
IC307 LC4001B
H.P PCB ASSY
H.P JACK
TAPE SELECT SW.
SW901
CrO2
NORMAL
SW902
ON
OFF
DOLBY NR SW.
MAIN PCB ASSY
IC301 LA6458DS
IC302 TC9152P
IC303 LA6458DS
IC304 LA3246
IC305 CXA-1101P
IC306 LA6462S
T309 OSC COIL
SW301
PHONO
AUX
CD
TUNER
DECK 1
DECK 2
ERASE HEAD
TO TUNER PCB
POWER TRANS
POWER SW.
SW 991
C991 0.01/400V
AC 220V/50HZ
CN301
CN302
CN303
CN304
CN305
CN306
CN307
CN701
CN702
CN703
CA301
CA302
CA551
CA601
CA602
CA603
CA851
CA901
CA902
CN951
CA951

# POINT TO POINT WIRING DIAGRAM


AC 220V
50Hz
POWER TRANS.
POWER P.C. BOARD
CN703
BLACKET
AC CORD
CN704
CN701
CN702
C991
SW991
POWER
SWITCH
POWER SWITCH P.C.BOARD
AM ANTENNA
CN303
CN305
CA302
CA301
CN307
CN304
MAIN P.C. BOARD
CN302
CN301
CN306
TUNER P.C. BOARD
W1
W2
W3
W4
JW101
CN101
CN102
CHASSIS
PLAY HEAD
CASSETTE
MOTOR
REC/PLAY/ERASE
HEAD
DECK 1
DECK 2
MOTOR SW.
MUTE SW.
TAPE
SELECTOR SW.
DUBBING
SW.
MECHA
P.C. BOARD
CA851
GRAPHIC EQUALIZER
P.C. BOARD
CA601
CA602
CA603
LAMP P.C. BOARD
HEADPHONE
P.C. BOARD
CA901
CA902
VOLUME
P.C. BOARD
FUNCTION P. C. BOARD
CA551
SWITCH P. C. BOARD
JW102

# IC & TRANSISTOR LEAD IDENTIFICATION

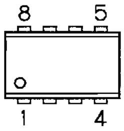
| TRANSISTOR | FRONT VIEW | BOTTOM VIEW | TRANSISTOR | FRONT VIEW | BOTTOM VIEW |
|---|---|---|---|---|---|
| 2SA1016K<br>2SA608<br>2SC2878<br>2SC3069<br>2SC3331<br>2SC3708<br>2SC536<br>2SC930 |  |  | 2SA1346<br>2SC2839<br>2SC3400<br>2SD1012 |  |  |
| 2SB1274<br>2SD1913 |  |  | 2SC2999 |  |  |
| 2SK241 |  |  | 2SK246 |  |  |

**TERMINAL NAME**

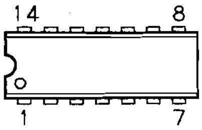
B → BASE
C → COLLECTOR
E → EMITTER

S → SOURCE
G → GATE
D → DRAIN

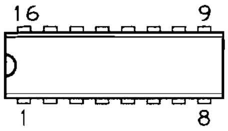
### LA6458DS TOP VIEW



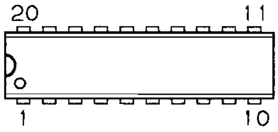
### LC4001B TOP VIEW



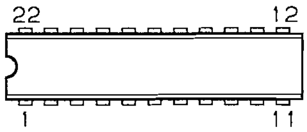
### CXA1101P TOP VIEW



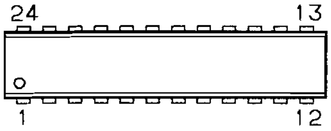
### LA3246 TOP VIEW



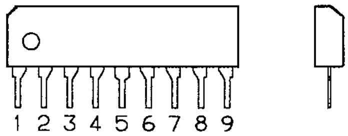
### LA3400 TOP VIEW
### TC9171P TOP VIEW



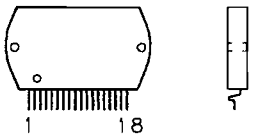
### LA1266 TOP VIEW



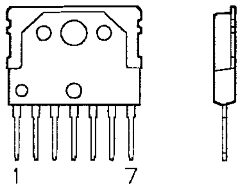
### LA6462S FRONT/SIDE VIEWS



### STK4142MK2 FRONT/SIDE VIEWS

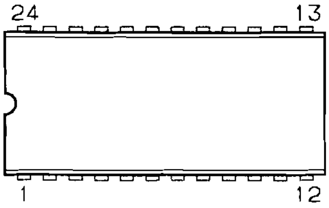


### LA5667 FRONT/SIDE VIEWS

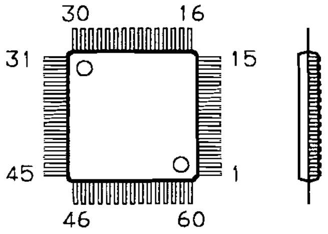


# IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

## TC9152P TOP VIEW



## TSE2039AF-020 TOP/SIDE VIEWS


30
16
31
15
45
1
46
60

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